

Date	All times in local time										Filter pack change time period	Begin	End	Comments											
	UT	MST	Film ent on	Pum p/z war m	Cho pper	Turbo Pump currents (amps)									Mass Spectrum Mode			TOF Mode			CCN				
Operator Initials						2	3	4	5	6	Bloc ked /open	Flow Rate (lpm)	Airbeam signal X10 ⁻⁶	Run Number of file being saved	Flow Rate (lpm)	AB TOF-air beam signal X 10 ⁻⁶	Baseline value (volts)	Time pads rewetted	Begin	End	Baseline after rewetting				
	0:00	18:00		AMS	AMS						locked by	PS L	START	17833				18:00	18:00						AMS unit blocked by PSL Begin recording AMS 17833
AC	1:00	19:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.294	1.95	17834	1.294	1.92	-6.3								
	2:00	20:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.296	1.96	17844	1.296	1.88	-5.9								
	3:00	21:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.298	1.92	17857	1.298	1.94	-7.7								
	4:00	22:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.305	1.93	17869	1.305	1.80	-7.4								
	5:00	23:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.308	1.92	17880	1.308	1.86	-6.9								
	6:00	24:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.309	1.88	17892	1.309	1.88	-6.1								
	7:00	0:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.710	1.87	17904	1.310	1.84	-6.5								
AC	8:00	1:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.711	1.87	17916	1.311	1.83	-6.0								
PD	9:00	2:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.309	1.81	17929	1.309	1.84	-6.3								
	10:00	3:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.309	1.76	17940	1.31	1.82	-6.3								
	11:00	4:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.309	1.73	17953	1.307	1.81	-5.6								
	12:00	5:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.309	1.74	17964	1.309	1.79	-4.9								
	13:00	6:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.311	1.78	17977	1.310	1.72	-7.1								
	14:00	7:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.311	1.74	17989	1.311	1.67	-6.5								
	15:00	8:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.31	1.73	18001	1.310	1.68	-7.1								
	16:00	9:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.304	1.83	18015	1.304	1.76	-6.1								
	17:00	10:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.301	1.84	18028	1.300	1.83	-5.2								
	18:00	11:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.300	1.83	18041	1.300	1.87	-7.0								
	19:00	12:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.298	1.84	18054	1.298	1.77	-6.4								
	20:00	13:00	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.297	1.81	18066	1.297	1.76	-5.7								
	21:00	14:00																							
	22:00	15:00																							
	23:00	16:00																							
Blank	Begin	End																							

AMS unit blocked by PSL
Begin recording AMS 17833

06:18-06:20, -7.5

08:48 8:50 -7.2

11:03 11:05 -7.2

(nephlog) 20 min?

TFI neph closed?

Date		09/05/06		All times in local time		Keck Data System																	
Oper ator Initials	UT	MST	Vacuum		Inlet Heater		Humidification			cyclone	Keck Data records X 10 ⁻⁶	CPC		UFN		Aethalometer		PCASP		Neph A		NephB	
			Pump oil	Pump pres	Inlet temp	Effe ctive RH	Ramp up	Ramp down	Drier rite change			Check/c lean	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)	
	0:00	18:00	✓	259	25.1	11.4	✓	✓	✓	✓	0.0858	—	—	0.26	4.1	300	✓	4.7	5.6				
	1:00	19:00	✓	242	20.9	11.0	✓	✓	✓	✓	0.00335	4868	6890	0.01	4.4	290	✓	5.67	6.59				
	2:00	20:00	✓	244	16.8	11.0	✓	✓	✓	✓	688	3970	5500	0.13	4.4	300	✓	5.9	5.9				
	3:00	24:00	✓	271	4.6	10.0	✓	✓	✓	✓	10888	3200	4400	0.08	4.4	290	✓	25.0	5.0				
	4:00	21:00	✓	249	13.1	9.9	✓	✓	✓	✓	0.01465	3100	4400	0.04	4.3	300	✓	19.6	5.3				
	5:00	23:00	✓	247	13.0	8.6	✓	✓	✓	✓	0.0179	2100	3300	0.01	4.2	250	✓	10.3	4.5				
	6:00	24:00	✓	267	13.5	8.1	✓	✓	✓	✓	0.02142	2551	3277	0.16	4.1	260	✓	8.1	4.8				
	7:00	0:00	✓	250	13.3	8.1	✓	✓	✓	✓	0.024761	3100	4000	0.13	4.2	300	✓	0.8	5.5				
	8:00	2:00	✓	256	13.2	8.2	✓	✓	✓	✓	0.02837	3100	4250	0.04	4.1	280	✓	6.5	5.5				
	9:00	3:00	✓	260	13.2	7.7	✓	✓	✓	✓	0.03260	3100	4000	0.11	4.2	320	✓	6.1	5.2				
	10:00	4:00	✓	276	13.1	8.1	✓	✓	✓	✓	0.0355	3000	3800	0.12	3.9	340	✓	5.9	5.7				
	11:00	5:00	✓	256	12.9	8.0	✓	✓	✓	✓	0.0398	2400	3200	0.11	3.9	390	✓	7.6	8.2				
	12:00	6:00	✓	247	12.9	7.9	✓	✓	✓	✓	0.0431	2100	2700	0.01	4.3	350	✓	8.4	8.4				
	13:00	7:00	✓	250	13	7.5	✓	✓	✓	✓	0.0468	2150	2700	0.01	4.1	300	✓	6.5	6.4				
	14:00	8:00	✓	252	14.1	7.4	✓	✓	✓	✓	0.0508	2000	2500	0.01	4.3	200	✓	3.7	3.2				
	15:00	8:00	✓	250	16.4	7.7	✓	✓	✓	✓	0.0536	1400	1800	0.16	4.5	280	✓	5.0	4.8				
	16:00	10:00	✓	280	14.6	7.0	✓	✓	✓	✓	0.0573	970	1200	0.56	4.2	450	✓	20.6	20.1				
	17:00	10:00	✓	268	22.4	8.0	✓	✓	✓	✓	0.06121	980	1235	0.64	4.6	550	✓	16.8	16.3				
	18:00	12:00	✓	278	23.8	9.9	✓	✓	✓	✓	0.064679	1410	1782	0.13	4.6	450	✓	11.1	11.6				
	19:00	13:00	✓	241	24.3	9.8	✓	✓	✓	✓	0.068258	1409	1882	0.01	4.7	459	✓	10.1	10.4				
	20:00	14:00	✓	274	25.5	10.1	✓	✓	✓	✓	0.07203	1641	2178	0.22	4.3	663	✓	16.1	15.5				
	21:00	15:00	✓	275	26.7	10.4	✓	✓	✓	✓	0.075285	2202	3298	0.14	4.3	837	✓	25.1	22.7				
	22:00	16:00	✓	245	27.8	9.9	✓	✓	✓	✓	0.079060	2109	2444	0.76	4.4	756	✓	21.7	19.8				
	23:00	17:00	✓																				
Blank	Begin	End																					

17:00 Data collection was stopped so that instrument checks & flow rate checks can be completed.

Keck II Data Systems

Date 9-05-06

Date	Operator Initials	UT	MST	TSI Neph		Data recording in sec	Sheath flow (ipm)	SMPS		Clean impactor	APS Sample Number	UHSAS Sample Number	
				Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)			Delta T K	Sample flow (ipm)				Sample number
		0:00	12:00	5.5	0.89	2.8	3.0	0.17	94	✓	95		
		1:00	13:00	5.7	0.88	2.9	3.0	0.21	12	✓	12	55	
		2:00	20:00	5.7	0.85	3.0	3.0	0.19	25		25	124	
		3:00	24:00	5.0	0.74	2.6	3.0	0.21	87		37	183	
		4:00	22:00	5.2	0.91	2.6	3.0	0.22	49	✓	49	244	
		5:00	23:00	4.8	0.98	2.3	3.0	0.22	60	✓	60	279	
		6:00	24:00	4.3	0.83	2.4	3.0	0.22	70	✓	70	313	
		7:00	0:00	5.1	0.83	2.4	3.0	0.22	82	✓	82	413	
		8:00	2:00	5.1	0.82	2.3	3.0	0.22	3	✓	3	473	
		9:00	3:00	5.4	0.87	2.3	3.0	0.22	17		17	545	
		10:00	4:00	5.5	0.88	2.4	3.0	0.22	26		26	594	
		11:00	5:00	7.1	1.1	2.3	3.0	0.22	41	Resynced	41	667	
		12:00	6:00	9.4	1.4	2.3	3.0	0.21	51		51	710	
		13:00	7:00	6.7	0.94	2.2	3.0	0.21	63		63	780	
		14:00	8:00	3.2	0.43	2.2	3.0	0.21	77		77	849	
		15:00	9:00	4.3	0.57	2.1	3.0	0.20	85	Resynced	85	894	
		16:00	10:00	17.0	2.11	2.2	3.0	0.18	97		97	956	
		17:00	11:00	16.7	2.4	2.3	3.0	0.22	110		110	1018	
		18:00	12:00	11.2	1.7	2.4	3.0	0.22	122		122	1078	
		19:00	13:00	10.0	1.5	2.3	3.0	0.21	134		134	1037	
		20:00	14:00	11.0	5.3	2.4	3.0	0.22	149		149	1213	
		21:00	15:00	26.4	3.7	2.5	3.0	0.22	158		158	1260	
		22:00	16:00	18.9	2.7	2.4	3.0	0.24	169		169	1313	
		23:00	17:00	Data collection stopped at 17:00 for filter change									
	Blank	Begin	End										

08/09/06

Date	All times in local time																													
	AMS																													
	Operat or Initials	UT	MST	Filament on	Pump on	Chamber open	Turbo Pump currents (amps)						Mass Spectrometer Mode			TOF Mode			CCN			Filter pack change time period	Begin End	Comments						
2							3	4	5	6	Flow Rate (ppm)	Airbeam signal X10 ⁻⁶	Run Number of file being saved	Flow Rate (ppm)	AB TOF ⁺ air beam signal X 10 ⁻⁶	Baseline value (volts)	Time pads rewetted Begin End	Baseline after rewetting												
		0:00	18:00	✓	✓						✓	1.288	2.14	17466	1.288	2.14	-3.4													
		1:00	19:00	✓	✓						✓	1.286	2.16	17457	1.286	2.17	-2.3	1:05	1:07	-6.8										
		2:00	20:00	✓	✓						✓	1.285	2.18	17469	1.285	2.12	-6.6													
		3:00	21:00	✓	✓						✓	1.288	2.17	17280	1.288	2.15	-5.8													
		4:00	22:00	✓	✓						✓	1.295	2.16	17293	1.295	2.14	-5.4	4:01	6:05	-7.2										
		5:00	23:00	✓	✓						✓	1.299	2.12	17306	1.299	2.05	-6.4													
		6:00	24:00	✓	✓						✓	1.299	2.12	17316	1.299	2.11	-5.7	6:27	6:29	-7.0										
		7:00	25:00	✓	✓						✓	1.30	2.1	17328	1.30	2.08	-6.9													
		8:00	26:00	✓	✓						✓	1.299	2.02	17341	1.299	2.06	-5.6	8:18	8:20	-6.3										
		9:00	27:00	✓	✓						✓	1.298	2.08	17353	1.298	1.84	-6.01													
		10:00	28:00	✓	✓						✓	1.298	1.99	17365	1.298	1.89	-5.69	10:06	10:10	-5.96										
		11:00	29:00	✓	✓						✓	1.298	1.99	17375	1.298	1.92	-4.86													
		12:00	30:00	✓	✓						✓	1.297	1.92	17389	1.297	1.79	-4.02	12:09	12:06	-6.00										
		13:00	31:00	✓	✓						✓	1.297	1.87	17400	1.297	1.71	-4.62	13:47	13:51	-6.02										
		14:00	32:00	✓	✓						✓	1.297	1.82	17413	1.297	1.76	-5.13	15:32												
		15:00	33:00	✓	✓						✓	1.297	1.79	17424	1.297	1.74	-4.10													
		16:00	34:00	✓	✓						✓	1.299	1.75	17438	1.299	1.60	-3.9	16:11	16:16	-6.28										
		17:00	35:00	✓	✓						✓	1.302	1.74	17449	1.302	1.60	-5.7													
		18:00	36:00	✓	✓						✓	1.303	1.69	17461	1.303	1.55	-4.3	18:11	18:14	-6.41										
		19:00	37:00	✓	✓						✓	1.296	2.20	17473	1.296	2.18	-5.7													
		20:00	38:00	✓	✓						✓	1.294	2.18	17485	1.294	2.17	-4.0	20:16	20:19	-6.7										
		21:00	39:00	✓	✓						✓	1.294	2.18	17497	1.294	2.16	-5.7													
		22:00	40:00	✓	✓						✓	1.294	2.16	17508	1.294	2.11	-5.1	22:10	22:10	-7.1										
		23:00	41:00	✓	✓						✓	1.286	2.14	17520	1.286	2.15	-7.0													
Blank		Begin	End																											

Synchronize SMPS and AP1, naph

15:32 Synchronised SMPS & APs

23:30 AMS zero

08/08/06

Keck Data System

Date	All times in local time		Keck Data System													
	UT	MST	Vacuum	Inlet Heater	Humidification	cyclone	Keck Data records X 10 ⁻⁶	GPC	UFN	Aethalometer	PCASP	Neph. A	Neph. B			
Operator Initials			Pump oil	Inlet temp	Ramp up	Ramp down	Drier rite change	Check/c lean	Keck Data ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)
0:00	18:00		✓	28.9	✓	✓	-	-	0.0	0.0	0.19		547	✓	5.2	4.5
1:00	19:00		✓	25.8	✓	✓	-	-	0	0	0.08	3.1	500	✓	3.4	3.4
2:00	20:00		✓	24.1	✓	✓	-	-	1714	2261	0.21	3.4	462	✓	4.0	3.7
3:00	21:00		✓	23.8	✓	✓	-	-	1379	1800	0.01	3.7	400	✓	3.6	2.5
4:00	22:00		✓	21.9	✓	✓	5:30	-	1722	1758	0.08	3.5	318	✓	2.7	2.0
5:00	23:00		✓	24.1	long time	✓	-	-	1753	2278	0.16	3.5	353	✓	4.2	3.4
6:00	24:00		✓	25.0	long time	✓	-	-	2495	3106	0.10	3.3	446	✓	5.0	4.9
7:00	25:00		✓	24.5	✓	✓	-	-	2450	3340	0.02	3.7	450	✓	3.7	4.3
8:00	26:00		✓	27.8	✓	✓	-	-	1578	1855	0.14	3.9	393	✓	3.2	3.0
9:00	27:00		✓	26.9	✓	✓	-	-	2000	2460	0.02	3.8	450	✓	3.3	3.2
10:00	28:00		✓	27.6	✓	✓	-	-	1620	2080	0.1	3.9	400	✓	3.6	3.1
11:00	29:00		✓	28.1	✓	✓	-	-	1660	2150	0.06	3.9	440	✓	3.5	3.0
12:00	30:00		✓	28.4	✓	✓	-	-	1580	2020	0.04	4.1	475	✓	3.4	4.0
13:00	31:00		✓	28.3	✓	✓	13:45	-	1530	1860	0.05	4.1	500	✓	4.0	4.2
14:00	32:00		✓	29.4	✓	✓	-	-	1250	1580	0.01	4.4	450	✓	3.0	3.2
15:00	33:00		✓	28.1	✓	✓	-	-	1100	1280	0.03	4.7	400	✓	3.5	2.4
16:00	34:00		✓	29.1	✓	✓	-	-	1460	2120	0.03	4.5	525	✓	3.9	4.1
17:00	35:00		✓	28.1	✓	✓	-	-	1110	1590	0.01	4.4	460	✓	3.9	2.5
18:00	36:00		✓	27.3	✓	✓	-	-	1241	1759	0.08	4.3	316	✓	2.6	2.6
19:00	37:00		✓	26.0	✓	✓	19:40	-	1087	1446	0.02	4.6	340	✓	2.4	2.5
20:00	38:00		✓	24.8	✓	✓	-	-	1180	1617	0.05	4.3	350	✓	3.0	2.6
21:00	39:00		✓	24.7	✓	✓	-	-	1375	1905	0.11	4.3	280	✓	3.5	2.6
22:00	40:00		✓	24.6	✓	✓	-	-	2612	3009	0.14	4.0	400	✓	3.8	3.3
23:00	41:00		✓	23.7	✓	✓	-	-	3600	4900	0.26	3.9	430	✓	3.7	2.7
Blank	24:00		✓	23.6	✓	✓	-	-	3600	4900	0.01	3.8	440	✓	4.0	2.9

note: @ 23:00, replaced the Keck 2 sys. UPS with J. Waldmanns (750.w.t) Kecks has been bypassing w/ pour line fluctuations -

RH controller is stuck at 25% RH at ~ 4:00. ~~fixed~~ - it resumed.

Keck II Data Systems

08/08/06

Date	Operator Initials	UT	MST	TSI Neph		Data recording in sec	Sheath flow (lpm)	SMPS		Clean impactor	APS Sample Number	UHSAS Sample Number
				Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)			Delta T K	Sample flow (lpm)			
		0:00	18:00									
		1:00	19:00				3.0	.22	10	V	10	62
		2:00	20:00				3.0	.22	21	V	21	114
		3:00	20:00				3.0	.22	34		34	178
		4:00	21:00				3.0	.23	46		46	232
		5:00	22:00				3.0	.24	57		57	294
		6:00	24:00				3.0	.22	69		69	353
		7:00	0:00				3.0	.23	80		80	414
		8:00	2:00				3.0	.21	92		92	473
		9:00	3:00				3.0	.22	105		104	533
		10:00	4:00				3.0	.21	11		11	597
		11:00	5:00				3.0	.20	21		21	652
		12:00	6:00				3.0	.22	33		33	713
		13:00	7:00				3.0	.22	45		45	774
		14:00	8:00				3.0	.22	56		55	827
		15:00	9:00				3.0	.21	12		12	894
		16:00	10:00				3.0	.20	23		23	950
		17:00	10:00				3.0	.24	35		35	1013
		18:00	12:00				3.0	.23	46		46	1070
		19:00	13:00				3.0	.23	58		58	1131
		20:00	14:00				3.0	.24	70		70	1190
		21:00	15:00				3.0	.24	82		82	1250
		22:00	16:00				3.0	.21	94		94	1314
		23:00	17:00				3.0	.23	106		106	1370
Blank		24:00	18:00				3.0	0.20	118		119	1436

2.00 -
1.52 filter off

08/08/06

Date	All times in local time													
	AMS													
	Film unit on	Pum #1/2 war m	Cho pper	Turbo Pump currents (amps)						Mass Spectrum Mode				
Operat or Initials	MST	UT	Flow Rate (pm)	Bloc ked /open	Flow Rate (pm)	Airbeam signal X10%	Run Number of file being saved	Flow Rate (pm)	AB TOF- air beam signal X 10%	Baseline value (volts)	Time pads rewetted		Baseline after rewetting	Comments
											2	3		
	0:00													
	1:00													
	2:00													
	3:00													
	4:00													
	5:00													
	6:00													
	7:00													
	8:00													
	9:00													
	10:00													
	11:00													
	12:00													
	13:00													
	14:00													
	15:00													
	16:00													
	17:00													
	18:00													
	19:00													
	20:00													
	21:00													
	22:00													
	23:00													
Blank														

Filter pack change time period
 23:50 - AMS off for results →
 0:00:00 - up again on air

AMS Value close. software close.

Baseline after rewetting
 -4.5
 -6.8
 -6.5
 -5.4
 -4.6
 -3.7
 -2.9
 -6.7
 -6.1
 -5.8
 -5.4
 -4.8
 -4.3
 -6.6
 -6.4
 -6.1
 -5.6
 -4.6
 -3.5
 -5.8
 -5.3

Time pads rewetted
 Begin End
 00:10 00:14
 06:32 06:36
 17:03 17:05

Comments
 23:50 - AMS off for results →
 0:00:00 - up again on air
 AMS Value close. software close.

File num: 20060807a view me

Keck Data System

Date	All times in local time				Keck Data System														
	UT	MST	Pump oil	Vacuum	Inlet Heater	Humidification			cyclone	Keck Data records	CPC		UFN	Aethalometer		PCASP		Neph A	Neph B
Operator	Initials		Pump pres	Inlet temp	Effetive RH	Ramp up	Ramp down	Drier rite change	Check/clean	Keck Data records X 10 ⁻⁶	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)	
	0:00	18:00	✓	250	27.3	21.7	✓	✓	-	.0034	1390(OK)	1630(OK)	.23	3.04m	450	OK	4.9	3.3	
	1:00	19:00	✓	270	28.3	22.9	✓	✓	-	.0067	1570(OK)	1940(OK)	.17	2.9	555	OK	5.4	5.0	
	2:00	20:00	✓	257	31.0	27.4	✓	✓	-	.01014	1540(OK)	1910(OK)	.01	3.2	440	OK	4.5	3.9	
	3:00	21:00																	
	4:00	22:00	✓	275	32.6	28.4	✓	✓	-	.01383	1483(OK)	2560(OK)	.12	3.4	560	OK	4.6	4.7	
	5:00	23:00	✓	248	31.2	26.0	✓	✓	-	.01704	1460(OK)	1907(OK)	.01	3.6	520	OK	4.2	3.9	
	6:00	24:00	✓	272	28.2	21.7	✓	✓	-	.02121	1410(OK)	1710(OK)	.22	3.2	535	OK	4.5	4.15	
	7:00	0:00	Filled	254	28.6	22.2	✓	✓	-	.02465	1603(OK)	2014(OK)	.01	3.3	505	OK	4.5	3.6	
MW	8:00	2:00	✓	280	29.6	23.6	✓	✓	-	.02827	1600	1900	.01	3.2	550	✓	3.7	3.4	
	9:00	3:00	✓	250	29.7	24.1	✓	✓	-	.03174	1700	2000	.01	3.0	550	✓	4.3	3.9	
	10:00	4:00	✓	280	29.4	23.4	✓	✓	-	.03553	1750	2200	.31	3.2	500	✓	4.0	3.5	
	11:00	5:00	✓	260	29.0	22.0	✓	✓	11:15	.03892	1970	3050	.11	3.7	400	✓	3.7	3.3	
	12:00	6:00	✓	250	26.4	19.4	✓	✓	-	.04255	2000	2300	.05	3.4	400	✓	4.9	4.7	
	13:00	7:00	✓	280	26.2	20.2	✓	✓	-	.04660	1300	1600	.07	3.1	600	✓	4.5	4.0	
	14:00	8:00	✓	280	29.0	23.6	✓	✓	-	.04915	1550	1900	.26	3.1	550	✓	4.2	4.8	
	15:00	9:00	✓	270	28.6	26.8	✓	✓	-	.05390	1520	1860	.10	3.2	620	✓	5.0	5.2	
	16:00	10:00	✓	280	29.7	28.6	✓	✓	-	.05670	1180(OK)	2270(OK)	.01	3.3	688	✓	6.8	6.3	
	17:00	11:00	✓	270	27.9	27.8	✓	✓	-	.06086	2380(OK)	3450(OK)	1.03	3.9	785	✓	8.3	8.1	
	18:00	12:00	✓	257	27.5	27.9	✓	✓	-	.06453	2099(OK)	3005(OK)	.17	3.9	630	✓	7.2	7.4	
	19:00	13:00	✓	255	28.3	28.0	✓	✓	18:15	.06775	3534(OK)	5477(OK)	.11	3.5	610	✓	7.3	5.8	
	20:00	14:00	✓	279	27.3	26.1	✓	✓	-	.07149	3379(OK)	5130(OK)	.14	4.4	530	✓	5.7	5.5	
	21:00	15:00	✓	251	26.8	24.4	✓	✓	-	.07495	2236(OK)	3335(OK)	.01	4.7	538	✓	4.5	3.7	
	22:00	16:00	✓	217	25.8	21.8	✓	✓	-	.07901	1794(OK)	2471(OK)	.22	4.4	540	✓	4.3	3.7	
	23:00	17:00	✓	245	28.1	20.5	✓	✓	-	.08221	2409	3214(OK)	.01	4.3	570	✓	3.4	3.5	
Blank	Begin	End																	

Time: please note I started The 19:00 MST (1:00 UT) on the Ophino - please add 1 to each hr to correct this. p.22

Note: Corrected at 4:00 UT (22:00 MST) -
 Note: high counts! Rained much of last night (gentle, scintillating), New sun is out,
 But air looks pretty clear yesterday the Tandem on the videx was dry & crackly,
 This morning is spacy & fluffy - lots of mosses. BWT

(UT) 4:00 - raining, RH outside = 83
 7:00(UT): big excursion in Neph A & B!
 WX @ 11:20 - overcast, 10° S49°RH

Keck II Data Systems

Date		Keck II Data Systems											
Operator Initials	UT	MST	TST Neph			Data recording in sec	Sheath flow (lpm)	SMPS			Clean impactor	AFS Sample Number	UHSAS Sample Number
			Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)	Delta T K			Sample flow (lpm)	Sample number				
MWA ↓	0:00	18:00	3.7	8.9	2.4	✓	3.0	0.2	12	-	12	53	
	1:00	19:00	5.2	9.8	2.4	✓	3.0	0.2	23	-	23	108	
	2:00	20:00	3.2	6.6	2.6	1224	3.0	0.16 to 0.22	34	-	34	169	
MWA MWA ↓	4:00	21:00	3.9	8.7	2.8	38 ✓	3.0	0.21	46	-	46	228	
	5:00	22:00	3.2	7.3	2.4	98 ✓	3.0	0.23	58	-	58	785	
	6:00	23:00	3.8	8.2	2.4	✓	3.0	0.23	70	-	70	348	
	7:00	0:00	1.0	1.4	2.4	✓	3.0	0.22	82	-	82	406	
	8:00	2:00	3.4	0.8	2.4	✓	3.0	0.18 to 0.22	1	-	1	461	
	9:00	3:00	3.2	0.8	2.5	✓	3.0	0.21	12	-	12	517	
	10:00	4:00	2.8	0.69	2.4	✓	3.0	0.25	25	-	25	583	
MWA MWA ↓	11:00	5:00	2.7	0.51	2.5	✓	3.0	0.22	36	-	36	641	
	12:00	6:00	5.5	0.83	2.3	✓	3.0	0.22	48	-	48	697	
	13:00	7:00	9.4	1.6	2.3	✓	3.0	0.22	60	-	60	757	
	14:00	8:00	4.2	0.87	2.3	✓	3.0	0.22	71	-	71	815	
	15:00	9:00	5.0	1.0	2.4	✓	3.0	0.23	86	-	86	891	
	16:00	10:00	6.6	1.24	2.4	✓	3.0	0.22	96	-	96	940	
	17:00	11:00	7.1	1.5	2.3	✓	3.0	0.21	110	-	109 (90 sec)	1012	
	18:00	12:00	6.9	1.3	2.4	✓	3.0	0.22	121	-	121	1068	
MWA MWA ↓	19:00	13:00	5.3	0.8	2.2	✓	3.0	0.22 to 0.23	131	-	132	1128	
	20:00	14:00	4.8	0.85	2.3	✓	3.0	0.22	12	-	12	1191	
	21:00	15:00	3.9	0.745	2.2	✓	3.0	0.22	23	-	23	1243	
	22:00	16:00	3.1	0.702	2.3	✓	3.0	0.24	36	-	36	1310	
	23:00	17:00	3.0	0.69	2.2	✓	3.0	0.24 to 0.25	47	-	47	1364	
	Blank	Begin	End										

size range 1, bank -
keeping mistake

Date	UT	MST	Filament on	Pump pressure	Chamber pressure	Turbo Pump currents (amps)						AMS Mass Spectrum Mode					TOF Mode		CCN		Filter pack change time period	Begin/End	Comments
						2	3	4	5	6	Bloc ked /open	Flow Rate (ppm)	Alfbeam signal X10%	Run Number of file being saved	Flow Rate (ppm)	AB TOF-air beam signal X 10^-6	Baseline value (volts)	Time pads rewetted Begin/End	Baseline after rewetting				
	0:00	18:00	✓			3.4	2.6	2.7	2.0	2.31	✓	1.39	2.38	15483	1.33	1.37	-4.3	1:55	-6.4				00:32 Air Time → -5 Back @ 00:36 Cycled PM pur off
	1:00	19:00	✓			3.4	2.6	2.7	2.0	2.30	✓	1.33	2.41	15484	1.33	2.4	-6.4	-	-				
	2:00	20:00	✓			3.4	2.4	2.7	2.0	2.30	✓	1.33	2.38	15486	1.33	2.24	-5.6	-	-				1:15 TOF logged while watching the see page 1 - his is just a bookkeeping mistake
	3:00	21:00	✓																				
	4:00	22:00	✓			3.0	1.0	2.7	2.0	2.28	✓	1.33	2.38	15498	1.33	2.31	-5.2	-	-				
	5:00	23:00	✓			3.2	1.2	2.4	2.0	2.28	✓	1.32	2.36	16009	1.33	2.28	-4.5	5:54	-5.4				
	6:00	24:00	✓			3.0	1.0	2.7	2.0	2.29	✓	1.32	2.31	16021	1.329	2.32	-6.3	5:54	-5.9				Filled pump oil Reservoir - was @ Bottom of lateral
	7:00	25:00	✓			3.0	1.2	2.4	2.0	2.29	✓	1.33	2.35	16033	1.33	2.30	-6.0	-	-				
	8:00	26:00	✓			3.1	1.2	2.7	2.1	2.28	✓	1.33	2.34	16043	1.33	2.30	-5.5	-	-				Removed used oil from pump
	9:00	27:00	✓			3.4	1.2	2.7	2.0	2.30	✓	1.33	2.22	16055	1.33	2.31	-4.9	-	-				
	10:00	28:00	✓			3.4	1.2	2.7	2.0	2.28	✓	1.33	2.31	16067	1.33	2.27	-4.5	-	-				
	11:00	29:00	✓			3.4	1.2	2.7	2.0	2.30	✓	1.33	2.35	16079	1.33	2.17	-3.9	12:10	-				
	12:00	30:00	✓			3.4	1.2	2.7	2.0	2.28	✓	1.33	2.29	16091	1.33	2.33	-6.7	-	-				
	13:00	31:00	✓			3.4	1.2	2.7	2.0	2.28	✓	1.33	2.33	16103	1.33	2.35	-6.1	-	-				
	14:00	32:00	✓			3.4	1.2	2.7	2.1	2.28	✓	1.33	2.33	16124	1.33	2.28	-5.4	-	-				
	15:00	33:00	✓			3.4	1.2	2.7	2.0	2.31	✓	1.33	2.30	16129	1.33	2.28	-4.6	4:10	-5.6				Have put filter/trap on pump outlet but still -
	16:00	34:00	✓			3.4	1.2	2.7	2.0	2.28	✓	1.33	2.31	16140	1.33	2.31	-3.7	-	-				
	17:00	35:00	✓			3.4	1.2	2.7	2.0	2.28	✓	1.327	2.29	16154	1.327	2.25	-5.2	-	-				
	18:00	36:00	✓			3.4	1.2	2.7	2.0	2.31	✓	1.327	2.30	16166	1.327	2.28	-5.2	-	-				
	19:00	37:00	✓			3.4	1.2	2.7	2.0	2.28	✓	1.327	2.26	16178	1.326	2.26	-5.1	8:16	-6.5				
	20:00	38:00	✓			3.4	1.2	2.7	2.0	2.31	✓	1.327	2.27	16190	1.327	2.26	-4.5	-	-				
	21:00	39:00	✓			3.4	1.2	2.7	2.0	2.31	✓	1.327	2.27	16201	1.327	2.25	-6.3	-	-				22:49 NST AMS TOF dropping to -5.7 Off - Back to 2.16. M HV = 2.1 + P4
	22:00	40:00	✓			3.4	1.2	2.7	2.0	2.28	✓	1.327	2.26	16214	1.327	2.25	-6.0	-	-				AMS Mult HV = 2.439 HV = 2.128 - on again.
	23:00	41:00	✓			3.4	1.2	2.7	2.0	2.28	✓	1.327	2.24	16224	1.327	2.21	-5.5	-	-				pur off HV = 2.439 23:28 on again.
Blank	Begin	End																					OK again!

replaced pump exhaust Filter, cleaned sponge & bucket w/ water; Back to no oil despite vs. 6.6, oil small detectable -

Date		08/06/06		All times in local time		Keck Data System																	
Operator Initials	UT	Vacuum		Inlet Heater		Humidification			cyclone	Keck Data records X 10 ⁻⁶	CPC		UFN		Aethalometer		PCASP		Neph A		Neph B		
		Pump oil	Pump pres	Inlet temp	Efflu RH	Ramp up	Ramp down	Drier rite change			Check/c lean	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)			
	0:00																						
	1:00																						
	2:00	✓	250	28.5	15.5	✓	✓	0.10	—	0.003	2200	2800	0.31	2.7	500	✓	13.6	12.0					
	3:00	✓	270	27.1	18.8	✓	✓	—	—	0.00576	2960	4000	0.09	2.9	590	✓	11.6	5.7					
	4:00	✓	250	28.6	20.2	✓	✓	—	—	0.00983	2420	3200	0.40	2.8	570	✓	6.7	5.4					
	5:00	✓	274	29.9	20.6	✓	✓	—	—	0.0134	2120	2800	0.26	—	530	✓	5.3	5.1					
	6:00	✓	270	28.0	17.1	✓	✓	—	—	0.0175	1530	2800	0.12	2.3	400	✓	3.35	3.29					
	7:00	✓	245	27.7	16.9	✓	✓	12:30	—	0.0206	2110	2800	0.01	2.8	550	✓	4.57	4.52					
	8:00	✓	275	27.7	19.0	✓	✓	—	—	0.0243	1820	2300	0.15	3.3	500	✓	4.7	4.4					
	9:00	✓	262	28	19.3	✓	✓	—	—	0.0275	1710	2440	0.01	3.4	600	✓	6.1	5.7					
	10:00	✓	250	28	19.2	✓	✓	—	—	0.0312	1968	2597	0.01	3.3	530	✓	5.5	5.6					
	11:00	✓	274	28	19.6	✓	✓	—	—	0.0346	1741	2163	0.07	3.6	490	✓	4.0	4.0					
	12:00	✓	257	28.2	20.4	✓	✓	—	—	0.0387	1817	2352	0.08	3.2	570	✓	6.7	3.9					
	13:00	✓	256	27.9	20.6	✓	✓	13:45	—	0.0485	2200	2798	0.06	3.5	500	✓	4.5	4.4					
	14:00	✓	265	26.5	19.9	✓	✓	—	—	0.0654	1890	2368	0.32	3.3	500	✓	4.6	3.4					
	15:00	✓	260	24.6	19.9	✓	✓	—	—	0.0489	1943	2529	0.01	3.3	600	✓	4.7	4.3					
	16:00	✓	276	26.4	20.7	✓	✓	—	—	0.0544	1967	2579	0.17	3.1	500	✓	3.8	3.6					
	17:00	✓	250	27.7	24.6	✓	✓	—	—	0.06254	1920	3520	0.36	3.4	500	✓	8.4	8.0					
	18:00	✓	270	26.9	24.8	✓	✓	—	—	0.06005	2240	3110	0.05	3.2	720	✓	6.6	5.1					
	19:00	✓	260	27.5	26.7	✓	✓	—	—	0.063800	2330	3120	0.07	3.6	625	✓	5.6	6.3					
	20:00	✓	280	29.2	26.5	✓	✓	—	—	0.07132	2900	4000	0.21	3.4	800	✓	11.2	10.6					
	21:00	✓	250	29.7	27.1	✓	✓	—	—	0.070902	1640	2070	0.01	3.6	580	✓	5.7	5.6					
	22:00	✓	280	29.9	26.3	✓	✓	21:10	—	0.074300	1480	2000	0.01	3.6	500	✓	5.6	5.2					
	23:00	✓	276	29.9	27.5	✓	✓	—	—	0.07220	1800	2430	0.01	3.2	600	✓	6.6	6.4					
Blank	Begin									0.085261	1620	2100	0.01	3.6	330	✓	5.4	4.5					
	End																						

WX: At 7:00 pm, T=12.6; RH=46.9%; BAN Cu
at noon MDT, good visibility, light winds. In most active C u sine Friday T=14°C, RH=48%
Hail and rain began from UTC 19:30 to
23:27 AMS

Keck II Data Systems

08/06/06

Date	Operator Initials	UT	MST	TSI Neph		Data recording in sec	SMPS			Clean impactor	APS Sample Number	UHSAS Sample Number
				Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)		Delta T K	Sheath flow (lpm)	Sample flow (lpm)			
		0:00	17:00									
	↓	1:00	17:00			✓	3.0	0.22	8	✓	8	60
	↓	2:00	18:00			✓	3.0	0.21	17	-	17	99
		3:00	19:00			✓	3.0	0.23	30	-	30	166
		4:00	20:00			✓	3.0	0.24	42	-	42	227
		5:00	21:00			✓	3.0	0.25	57	-	57	300
		6:00	22:00			✓	3.0	0.16	66	-	66	347
		7:00	23:00			✓	3.0	0.23	78	-	78	408
		8:00	0:00			✓	3.0	0.23	89	-	89	464
		9:00	1:00			✓	3.0	0.23	10	-	10	525
		10:00	2:00			✓	3.0	0.23	21	-	21	581
		11:00	3:00			✓	3.0	0.23	33	-	33	640
		12:00	4:00			✓	3.0	0.22	44	-	44	702
		13:00	5:00			✓	3.0	0.22	56	-	56	761
		14:00	6:00			✓	3.0	0.22	68	-	68	819
		15:00	7:00			✓	3.0	0.22	80	-	80	876
		16:00	8:00			✓	3.0	0.22	93	-	93	939
		17:00	9:00			✓	3.0	0.21	105	-	105	1004
		18:00	10:00			✓	3.0	0.21	1	-	1	1066
		19:00	11:00			✓	3.0	0.24	11	-	11	1121
		20:00	12:00			✓	3.0	0.22	24	-	24	1184
		21:00	13:00			✓	3.0	0.23	35	-	35	1241
		22:00	14:00			✓	3.0	0.23	48	-	48	1306
		23:00	15:00			✓	3.0	0.24	72	-	72	1429
	Blank	Begin	16:00			✓	3.0	0.25		-		
		End	17:00			✓	3.0			-		

Resort SMP, Aps

Date	08/05/06		All times in local time		Keck Data System													
	UT	MST	Pump oil	Vacuum	Inlet Heater	Humidification		cyclone	CPC	UFN	Aethalometer		PCASP	Neph A	Neph B			
Operator Initials			Pump pres	Inlet temp	Effe ctive RH	Ramp up	Ramp down	Drier rite change	Check/c lean	Keck Data records X 10 ⁻⁶	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)
	0:00	18:00	✓	254	28.2	18.5	✓	✓	✓	0.02146	✓	✓	0.11		222	✓	3.4	2.0
	1:00	19:00	✓	254	28.2	18.5	✓	✓	✓	0.02146	✓	✓	0.11	3.0	222	✓	3.4	2.0
	2:00	20:00	✓	267	28.0	17.4	✓	✓	✓	0.00438	✓	✓	0.06	2.8	180	✓	5.5	1.0
	3:00	21:00	✓	250	28.9	17.5	✓	✓	✓	0.0942	✓	✓	0.14	3.0	330	✓	4.6	2.6
	4:00	22:00	✓	275	29.1	17.1	✓	✓	✓	0.1267	✓	✓	0.04	2.6	370	✓	4.0	2.9
	5:00	23:00	✓	370	29.0	16.7	✓	✓	✓	0.16611	✓	✓	0.06	2.5	330	✓	4.6	3.1
	6:00	24:00	✓	263	30.0	17.7	✓	✓	✓	0.2005	✓	✓	0.05	2.8	400	✓	5.8	3.8
	7:00	0:00	✓	241	29.9	16.8	✓	✓	✓	0.2372	✓	✓	0.08	2.8	370	✓	4.0	3.6
	8:00	2:00	✓	245	30.3	18.2	✓	✓	✓	0.2748	✓	✓	0.06	2.8	380	✓	4.2	4.0
	9:00	3:00	✓	265	30.6	21.9	✓	✓	✓	0.3117	✓	✓	0.10	3.3	400	✓	4.0	4.1
	10:00	4:00	✓	250	32.8	28.3	✓	✓	✓	0.348	✓	✓	0.14	3.6	450	✓	7.2	6.1
	11:00	5:00	✓	270	33.3	28.7	✓	✓	✓	0.385	✓	✓	0.09	3.7	480	✓	5.8	5.7
	12:00	6:00	✓	255	32.4	27.6	✓	✓	✓	0.421	✓	✓	0.10	3.7	430	✓	8.1	5.7
	13:00	7:00	✓	250	33.0	28.1	✓	✓	✓	0.459	✓	✓	0.06	3.7	465	✓	5.2	5.4
	14:00	8:00	✓	250	32.0	25.8	✓	✓	✓	0.495	✓	✓	0.43	3.6	430	✓	4.5	4.6
	15:00	9:00	✓	265	30.1	25.4	✓	✓	✓	0.529	✓	✓	0.56	3.3	400	✓	5.3	4.2
	16:00	10:00	✓	250	30.3	26.2	✓	✓	✓	0.5683	✓	✓	0.01	3.7	500	✓	5.0	4.8
	17:00	11:00	✓	250	30.4	26.2	✓	✓	✓	0.60266	✓	✓	0.11	3.3	510	✓	6.2	5.5
	18:00	12:00	✓	250	27.5	22.7	✓	✓	✓	0.64711	✓	✓	0.01	3.5	610	✓	7.8	6.1
	19:00	13:00	✓	260	27.4	21.4	✓	✓	✓	0.6702	✓	✓	0.01	3.3	580	✓	5.6	5.2
	20:00	14:00	✓	260	17.9	19.8	✓	✓	✓	0.70866	✓	✓	0.01	3.1	570	✓	5.9	4.6
	21:00	15:00	✓	250	26.7	17.3	✓	✓	✓	0.7420	✓	✓	0.03	3.3	540	✓	5.2	4.3
	22:00	16:00	✓	277	28.1	25.4	✓	✓	✓	0.7643	✓	✓	0.01	2.9	570	✓	4.8	4.2
	23:00	18:00	✓	250	28.1	15.8	✓	✓	✓	0.81739	✓	✓	0.05	2.7	520	✓	4.2	3.5
	Blank	Begin	✓	280	28.7	15.3	✓	✓	✓	0.84690	✓	✓	0.01	2.7	360	✓	4.5	4.0

WX: At 5:00 am T = 6.5°C RH = 91.3% SCT clouds
 7:00 am T = 7.5°C RH = 84% SCT clouds, very clear
 9:00 am T = 16°C RH = 64% BKN mid-level clouds (thin)

Misty view from the summit of BLK (in the morning) 08/05/06.

Zero air for AMS on at 23:24

V low mixed layers (night - excellent visibility)

Keck II Data Systems

08/05/06

Date	Operator Initials	UT	MST	TSP Neph		Data recording in sec	Sheath flow (lpm)	SMPS		Clean impactor	APS Sample Number	UHSAS Sample Number
				Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)			Delta T K	Sample flow (lpm)			
		0:00	18:00									
		1:00	19:00			✓	3.0	0.122	49	✓	#9	33
		2:00	20:00			✓	3.0	0.22	22	✓	22	102
		3:00	21:00			✓	3.0	0.22	31	✓	31	150
		4:00	22:00			✓	3.0	0.23	43	✓	43	207
		5:00	23:00			✓	3.0	0.24	55	✓	55	272
		6:00	24:00			✓	3.0	0.22	67	✓	67	330
		7:00	0:00			✓	3.0	0.22	79	✓	79	391
		8:00	2:00			✓	3.0	0.22	#1	✓	#1	454
		9:00	3:00			✓	3.0	0.21	14	✓	14	522
		10:00	4:00			✓	3.0	0.18	26	✓	26	578
		11:00	5:00			✓	3.0	0.23	37	✓	37	638
		12:00	6:00			✓	3.0	0.22	49	✓	49	698
		13:00	7:00			✓	3.0	0.22	62	✓	62	762
		14:00	8:00			✓	3.0	0.23	73	✓	73	815
		15:00	9:00			✓	3.0	0.23	85	✓	85	877
		16:00	10:00			✓	3.0	0.24	5	✓	5	938
		17:00	11:00			✓	3.0	0.25	16	✓	16	993
		18:00	12:00			✓	3.0	0.26	32	✓	32	1070
		19:00	13:00			✓	3.0	0.21	38	✓	38	110
		20:00	14:00			✓	3.0	0.22	52	✓	52	1176
		21:00	15:00			✓	3.0	0.22	63	✓	63	1231
		22:00	16:00			✓	3.0	0.22	75	✓	75	1289
		23:00	17:00			✓	3.0	0.23	88	✓	88	1358
	Blank	Begin	End			✓	3.0	0.24	98	✓	98	1406

Restart ops. smps

resynched APD
smps

Date	All times in local time																			
	AMS																			
	Mass Spectrum Mode					TOF Mode														
	Filter pack change time period	Begin	End	Comments	Time pads rewetted	Begin	End	Baseline value (volts)	Time pads rewetted	Begin	End									
Operat or Initials	UT	MST	Flam ent on	Pum ph2 wer tm	Cho pper	Turbo Pump currents (amps)			Bloc ked /open	Flow Rate (ppm)	Airbeam signal X10 ⁻⁶	Run Number of file being saved	Flow Rate (ppm)	AB TOF-air beam signal X 10 ⁻⁶	Baseline value (volts)	Time pads rewetted	Begin	End	Comments	
	0:00	18:00				2	3	4	5	6										
	1:00	19:00																		
	2:00	20:00																		
	3:00	21:00																		
	4:00	22:00																		
	5:00	23:00																		
	6:00	24:00																		
	7:00	1:00																		
	8:00	2:00																		
	9:00	3:00																		
	10:00	4:00																		
	11:00	5:00																		
	12:00	6:00																		
	13:00	7:00																		
	14:00	8:00																		
	15:00	9:00																		
	16:00	10:00																		
	17:00	11:00																		
	18:00	12:00																		
	19:00	13:00																		
	20:00	14:00																		
	21:00	15:00																		
	22:00	16:00																		
	23:00	17:00																		
Blank	Begin	End																		

live G.F. begins at 1:05

Calibration

AMS zero on 23:24

08/06/06

Keck II Data Systems

Date 06/03/04

Operator Initials	UT	MST	TSP/Neph		Data recording in sec	Sheath flow (lpm)	SMPS		Clean impactor	APS Sample Number	UHSAS Sample Number
			Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)			Delta T K	Sample flow (lpm)			
	0:00	18:00	7.60	1.27	2.6	3.0	.22	599	-	8620	11
	1:00	19:00	7.04	1.27	2.4	3.0	.22	612	-	8687	78
	2:00	20:00	6.352	1.22	2.5	3.0	.22	622	-	8737	128
	3:00	20:00	7.36	1.31	2.5	3.0	.22	633	-	8792	184
	4:00	22:00	6.9	1.3	2.4	3.0	.24	644	-	8847	240
	5:00	23:00	6.30	1.12	2.3	3.0	.25	656	-	8904	297
	6:00	24:00	6.40	1.08	2.3	3.0	.24	668	-	8968	362
	7:00	9:00	6.49	1.03	2.3	3.0	.25	680	-	9024	418
	8:00	2:00	6.09	1.12	2.3	3.0	.22	693	-	9091	486
	9:00	3:00	6.20	1.09	2.3	3.0	.22	704	-	9146	543
	10:00	4:00	6.32	1.11	2.3	3.0	.22	716	-	9207	603
	11:00	5:00	8.64	1.53	2.3	3.0	.22	729	-	9269	662
	12:00	6:00	6.71	1.15	2.6	3.0	.19	740	-	9331	731
	13:00	7:00	5.87	1.13	2.4	3.0	.22	752	-	9385	783
	14:00	8:00	6.39	1.26	2.15	3.0	.22	763	✓	9441	840
	15:00	9:00	7.29	1.28	2.4	3.0	.22	775	-	9503	903
	16:00	10:00	8.48	1.51	2.5	3.0	.21	788	-	9564	965
	17:00	10:00	7.42	1.45	2.5	3.0	.22	799	-	9628	1031
	18:00	12:00	11.2	6.05	2.4	3.0	.22	816	-	9708	1109
	19:00	13:00	4.65	.97	2.3	3.0	.23	825	-	9754	1155
20:00	14:00	5.22	1.01	2.3	3.0	.24	835	-	9799	1201	
21:00	15:00	4.01	0.90	2.3	3.0	.22	847	-	9863	1265	
22:00	16:00	5.1	.93	2.4	3.0	.23	858	-	9916	1319	
23:00	17:00	3.9	.73	2.4	3.0	.23	870	-	9980	1389	
Blank	Begin	End	7.4	4.4	2.4	3.0	5.22	876	-	10035	1439

NO SMPS running diry
at 2:30 AM.

06/08/14

All times in local time

AMS

Filter pack change time period

Date	Operat or Initials	UT	MST	Filament on	Pump #2 warm	Chopper	Turbo Pump currents (amps)						Mass Spectrum Mode				TOF Mode			CCN		Filter pack change time period	Begin End	Comments							
							2	3	4	5	6	Blocked/open	Flow Rate (lpm)	Airbeam signal X10 ⁶	Run Number of file being saved	Flow Rate (lpm)	AB TOF-air beam signal X 10 ⁶	Baseline value (volts)	Time packs rewetted Begin End	Baseline after rewetting											
		0:00	18:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.314	2.02	15121	1.314	2.02	1.314	2.02	-3.13											
		1:00	19:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.314	2.04	15134	1.314	2.04	1.314	2.04	-2.33	7:24	7:27	-5.16								
		2:00	20:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.316	1.99	15144	1.316	1.99	1.316	1.99	-4.74											
	MV	3:00	21:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.316	2.01	15166	1.316	2.01	1.316	2.01	-3.86											
		4:00	22:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.316	1.98	15177	1.316	1.98	1.316	1.98	-3.84											
		5:00	23:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.319	1.98	15190	1.319	1.98	1.319	1.98	-2.84	11:01	11:03	-5.18								
		6:00	24:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.319	1.97	15202	1.319	1.97	1.319	1.97	-4.38											
		7:00	1:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.320	1.98	15216	1.320	1.98	1.320	1.98	-3.95											
		8:00	2:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.320	1.95	15227	1.320	1.95	1.320	1.95	-3.14											
		9:00	3:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.320	1.95	15239	1.320	1.95	1.320	1.95	-5.8											
		10:00	4:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.320	1.95	15251	1.320	1.95	1.320	1.95	-4.8											
		11:00	5:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.317	1.95	15263	1.317	1.95	1.317	1.95	-3.5											
		12:00	6:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.317	1.96	15275	1.317	1.96	1.317	1.96	-3.0											
		13:00	7:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.317	1.94	15286	1.317	1.94	1.317	1.94	-2.3	8:15	8:18	-5.4								
		14:00	8:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.318	1.93	15299	1.318	1.93	1.318	1.93	-4.98											
		15:00	9:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.320	1.94	15311	1.320	1.94	1.320	1.94	-4.8											
		16:00	10:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.319	1.93	15324	1.319	1.93	1.319	1.93	-4.1											
		17:00	11:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.318	1.92	15339	1.318	1.92	1.318	1.92	-3.4											
		18:00	12:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.317	1.92	15349	1.317	1.92	1.317	1.92	-2.9											
		19:00	13:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.319	1.93	15358	1.319	1.93	1.319	1.93	-2.6											
		20:00	14:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.321	1.85	15371	1.321	1.85	1.321	1.85	-2.5											
		21:00	15:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.321	1.89	15382	1.321	1.89	1.321	1.89	-6.2											
		22:00	16:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.321	1.90	15395	1.321	1.90	1.321	1.90	-5.8											
		23:00	17:00	✓	✓	✓	0.00	0.00	0.00	0.00	0.00	0.00	1.321	1.90	15408	1.321	1.90	1.321	1.90	-5.1											
	Blank	Begin	End																												

Notice with flow cooler stops → checked

MW+YC arrived @ 11:00 am

Peak system locked up. Rebooted. Must start from 2022-2035

Begin AMS @ 2526 Z
Filters changed @ 2340-2350

Date		06/08/04		All times in local time										Keck Data System									
Operator Initials	UT	MST		Vacuum		Inlet Heater		Humidification		cyclone		CPC		UFJN		Aethalometer		PCASP		Neph A		Neph B	
		Pump oil	Pump pres	Inlet temp	Effluve RH	Ramp up	Ramp down	Drier rite change	Check/c lean	Keck Data records X 10 ⁻⁶	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)					
	0:00	✓	250	22.38	15.67	✓	✓	✓	✓	✓	✓	1370	1766	0.39	3.9	649	✓	8.97	8.16				
	1:00	✓	254	22.75	14.87	✓	✓	✓	✓	✓	✓	1363	1736	0.24	3.6	743	✓	7.50	6.89				
	2:00	✓	265	21.98	13.98	✓	✓	✓	✓	✓	✓	1266	1599	0.01	3.2	644	✓	7.26	6.45				
	3:00	✓	269	23.82	14.65	✓	✓	✓	✓	✓	✓	1696	2243	0.09	3.3	635	✓	7.56	7.26				
	4:00	✓	252	24.52	14.98	✓	✓	✓	✓	✓	✓	1722	2423	0.06	3.6	684	✓	8.85	7.69				
	5:00	✓	268	24.62	14.75	✓	✓	✓	✓	✓	✓	1463	2081	0.03	3.1	658	✓	7.51	6.95				
	6:00	✓	267	24.22	14.22	✓	✓	✓	✓	✓	✓	1781	2426	0.01	3.0	615	✓	7.9	6.83				
	7:00	✓	271	25.08	14.58	✓	✓	✓	✓	✓	✓	2025	2719	0.15	3.2	569	✓	7.5	6.59				
	8:00	✓	265	26.1	15.5	✓	✓	✓	✓	✓	✓	1150	1500	0.11	3.2	640	✓	9.8	6.4				
	9:00	✓	250	26.8	16.1	✓	✓	✓	✓	✓	✓	1130	1500	0.108	3.2	630	✓	6.95	6.65				
	10:00	✓	270	26.9	16.6	✓	✓	✓	✓	✓	✓	1150	1500	0.16	2.9	630	✓	7.5	7.1				
	11:00	✓	270	27.3	17.1	✓	✓	✓	5:10	✓	✓	1310	1710	0.10	3.0	780	✓	10.1	8.7				
	12:00	✓	245	28.2	18.5	✓	✓	✓	✓	✓	✓	1140	1500	0.10	3.2	680	✓	10.2	9.3				
	13:00	✓	250	28.4	20.1	✓	✓	✓	✓	✓	✓	990	1240	0.06	3.4	570	✓	6.5	6.1				
	14:00	✓	250	28.4	21.7	✓	✓	✓	✓	✓	✓	1000	1300	0.15	3.7	550	✓	6.5	5.9				
	15:00	✓	270	25.0	22.3	✓	✓	✓	✓	✓	✓	1054	1440	0.07	3.8	600	✓	7.0	6.8				
	16:00	✓	270	27.5	22.9	✓	✓	✓	✓	✓	✓	1070	1400	0.01	3.4	700	✓	7.3	8.4				
	17:00	✓	250	27.4	22.2	✓	✓	✓	✓	✓	✓	1180	1600	0.24	3.5	740	✓	8.4	8.6				
	18:00	✓	260	25.5	21.4	✓	✓	✓	✓	✓	✓	1060	1450	0.27	3.5	680	✓	9.8	6.7				
	19:00	✓	250	24.2	18.3	✓	✓	✓	✓	✓	✓	1080	1541	0.01	3.4	630	✓	7.9	5.3				
	20:00	✓	269	24.1	17.0	✓	✓	✓	✓	✓	✓	1140	1571	0.03	3.6	630	✓	6.1	5.5				
	21:00	✓	277	26.3	14.3	✓	✓	✓	✓	✓	✓	1030	1230	0.01	3.4	520	✓	5.0	4.9				
	22:00	✓	258	27.0	13.5	✓	✓	✓	✓	✓	✓	970	1340	0.03	3.1	440	✓	6.4	5.5				
	23:00	✓	240	26.7	13.3	✓	✓	✓	✓	✓	✓	1315	1700	0.22	3.3	540	✓	4.9	4.3				
	Begin	✓	247	23.6	20.4	✓	✓	✓	✓	✓	✓	-1.5	-36.4	0.10	3.2	366	✓	6.1	4.3				

V. Clean @ 7:00 am
Great visibility

Wk: BKN Station T: 12°C; RH 40% @ 18:00
CLR + V thin ci T: 4.0°C; RH 51% @ 21:00 am
CLR T: 8.2°C; RH = 61% @ 5:00 am
CLR T: 9.1°C; RH = 64% @ 8:00 am
CLR T: 11.2°C; RH = 58% @ 10:00 am

Very CLR to No. T = 15.1, RH = 33%, Culu # altostatus z = 1950 Zulu
+11 CLR to No. Alto. C building & filling in SKX (0.8) # AS layer higher. Looks like moisture collecting @ 2300Z

Date	All times in local time										Keck Data System																
Date	Vacuum					Inlet Heater					Humidification					cyclone	Keck Data records X 10 ⁻⁶	CPC Concentrat ion/ Butanol OK	UFN Concentrat ion/ Butanol OK	Aethalometer		PCASP		Neph A		Neph B	
	UT	MST	Pump oil	Pump pres	Inlet temp	Effe ctive RH	Ramp up	Ramp down	Drier rite change	Check/c lean	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ³)					Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)			
06/08/03	0:00	18:00	✓	270	21.4	13.3	✓	✓	-	-	0.00241	6700	9200	0.01	3.8	580	✓	9.8	9.3								
	1:00	19:00	✓	250	20.8	9.9	✓	✓	-	-	0.004733	2700	3600	0.21	4.0	500	✓	15.8	16.3								
	2:00	20:00	✓	270	19.1	10.4	✓	✓	-	-	0.007297	2150	3050	0.25	4.0	550	✓	18.1	18.2								
	3:00	21:00	✓	250	17.9	10.1	✓	✓	-	-	0.01034	4270	5700	0.23	3.8	630	✓	19.0	18.6								
	4:00	22:00	✓	270	17.2	9.9	✓	✓	-	-	0.01426	3460	4700	0.20	3.8	650	✓	17.0	18.2								
	5:00	23:00	✓	245	17.1	10.4	✓	✓	-	-	0.01835	2830	3750	0.05	3.8	630	✓	18.7	21.3								
	6:00	24:00	✓	270	17.0	9.7	✓	✓	-	-	0.02208	1660	2210	0.24	3.8	630	✓	20.6	22.0								
	7:00	0:00	✓	245	17.0	9.6	✓	✓	-	-	0.02525	1060	1450	0.04	3.4	560	✓	17.4	17.6								
	8:00	1:00	✓	246	16.6	9.6	✓	✓	2.04	-	0.02845	1092	1428	0.01	3.5	437	✓	15.35	16.78								
	9:00	2:00	✓	258	15.9	9.6	✓	✓	-	-	0.03216	1525	2075	0.07	3.6	531	✓	16.23	15.99								
	10:00	3:00	✓	257	15.42	9.8	✓	✓	-	-	0.03583	1756	2227	0.28	3.5	582	✓	17.39	16.54								
	11:00	4:00	✓	254	15.07	10.2	✓	✓	-	-	0.039756	3821	5014	0.13	3.6	740	✓	17.70	17.39								
	12:00	5:00	✓	251	15.01	10.11	✓	✓	-	-	0.04293	3456	3419	0.18	3.8	605	✓	15.747	14.83								
	13:00	6:00	✓	277	14.59	10.86	✓	✓	-	-	0.04669	3738	4931	0.17	3.9	691	✓	15.31	14.78								
	14:00	7:00	✓	273	14.21	11.43	✓	✓	-	-	0.05431	3290	4495	0.32	3.9	590	✓	14.526	14.03								
	15:00	8:00	✓	271	20.62	12.18	✓	✓	-	-	0.05828	2875	3814	0.01	3.5	626	✓	12.87	12.75								
	16:00	9:00	✓	260	22.6	13.5	✓	✓	-	-	0.05729	2330	3005	0.02	4.0	560	✓	13.1	12.2								
	17:00	10:00	✓	250	22.8	14.4	✓	✓	-	-	0.06161	1980	2650	0.00	4.1	660	✓	10.3	10.3								
	18:00	11:00	✓	280	23.3	14.8	✓	✓	12.005	-	0.0669	1720	2220	0.01	4.2	610	✓	9.6	9.1								
	19:00	12:00	✓	280	23.7	13.3	✓	✓	-	-	0.0686	1506	1920	0.01	3.7	570	✓	8.4	8.1								
	20:00	13:00	✓	250	23.5	13.3	✓	✓	-	-	0.0710	1490	2000	0.02	4.0	460	✓	10.6	8.2								
	21:00	14:00	✓	260	23.7	13.6	✓	✓	-	-	0.0753	1570	2080	0.14	3.6	770	✓	11.9	12.0								
	22:00	15:00	✓	270	22.7	14.6	✓	✓	-	-	0.0797	1450	1820	0.01	3.5	640	✓	10.6	8.9								
	23:00	16:00	✓	250	22.1	15.2	✓	✓	-	-	0.0826	1440	1810	0.16	3.7	560	✓	10.3	8.6								

WX: SCT Fair w/ Cu @ 6:00 pm (start) T=10.3 ; RH=34%
 clear @ 7:00 pm T=10.6 ; RH=28.6%
 clear @ 10:00 am T=8.2 ; RH=33.1%
 @ midnight T=7.7 ; RH=34.2%
 clear @ 10 am T=12 ; RH=30.8%
 12 pm Fair w/ Cu ; mid-level cont. adv; T=13.8, RH=26.6%
 1 pm overcast

Keck II Data Systems

Date 06/08/03

Date	Operator Initials	UT	MST	TST Neph		Data recording in sec	Sheath flow (lpm)	SMPS		Clean impactor	APS Sample Number	UHSAS Sample Number
				Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)			Delta T K	Sample flow (lpm)			
		0:00	18:00	9.377	1.428	2.5	3.0	0.22	316	-	7205	5
		1:00	19:00	14.84	1.94	2.6	3.0	0.23	330	-	7279	82
		2:00	20:00	16.94	2.45	2.5	3.0	0.24	338	-	7318	127
		3:00	21:00	17.6	2.48	2.5	3.0	0.22	350	-	7374	182
		4:00	22:00	16.6	2.29	2.5	3.0	0.22	361	-	7431	240
		5:00	23:00	17.7	2.5	2.3	3.0	0.22	374	-	7498	308
		6:00	24:00	16.4	2.38	2.3	3.0	0.22	387	-	7557	370
		7:00	0:00	17.7	2.35	2.2	3.0	0.24	397	-	7611	422
		8:00	2:00	15.91	2.19	2.3	3.0	0.23	408	-	7664	476
		9:00	3:00	15.75	2.03	2.3	3.0	0.22	420	-	7725	538
		10:00	4:00	15.64	2.15	2.3	3.0	0.22	432	-	7786	600
		11:00	5:00	15.96	2.43	2.4	3.0	0.22	445	-	7850	664
		12:00	6:00	14.36	2.17	2.3	3.0	0.21	456	-	7903	717
		13:00	7:00	15.03	2.16	2.3	3.0	0.21	468	-	7965	780
		14:00	8:00	12.98	1.96	2.2	3.0	0.21	480	-	8026	843
		15:00	9:00	12.2	1.91	2.3	3.0	0.21	491	-	8082	899
		16:00	10:00	11.4	1.8	2.6	3.0	0.22	503	-	8139	957
		17:00	11:00	9.37	1.6	2.7	3.0	0.20	515	-	8199	1017
		18:00	12:00	8.6	1.50	2.5	3.0	0.20	527	-	8263	1083
		19:00	13:00	7.5	1.2	2.3	3.0	0.22	539	-	8323	1145
		20:00	14:00	7.8	1.2	2.5	3.0	0.23	550	-	8377	1199
		21:00	15:00	9.35	1.42	2.5	3.0	0.23	561	-	8433	1256
		22:00	16:00	8.39	1.35	2.6	3.0	0.23	575	-	8499	1323
		23:00	17:00	8.14	1.26	2.5	3.0	0.24	586	-	8555	1379
	Blank	Begin	End									

SMPS/APS synch.

1200

Date	All times in local time															Filter pack change time period	Begin End	Comments								
	AMS																									
	Operat or Initials	UT	MST	Flam ent on	Pum ph2 war m	Cho pper	Turbo Pump currents (amps)						Mass Spectrum Mode						TOF Mode			CCN				
							2	3	4	5	6	Block open	Flow Rate (ppm)	Airbeam signal X10 ⁻⁶	Run Number of file being saved				Flow Rate (ppm)	AB TOP- air beam signal X 10 ⁻⁶	Baseline value (volts)	Time paid rewetted	Begin	End		
Flow Rate (ppm)							Baseline value (volts)	Time paid rewetted	Begin	End	Baseline value (volts)	Time paid rewetted	Begin	End												
	0:00	18:00	✓	✓	✓	3.48	3.14	3.00	3.00	3.00	✓	1.317	2.16	14881	1.317	2.15	-4.66									
	1:00	19:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.15	14844	1.315	2.07	-3.5									
	2:00	20:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.314	2.13	14856	1.314	2.15	-2.9									
	3:00	21:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.316	2.17	14866	1.316	2.09	-2.0	9.04	9.05	-6.1						
DCM	4:00	22:00	✓	✓	✓	3.00	3.00	3.00	3.00	3.00	✓	1.316	2.15	14878	1.316	2.12	-5.2									
	5:00	23:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.13	14892	1.315	2.08	-4.1									
	6:00	24:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.13	14904	1.315	2.10	-3.2	12.55	12.58	-6.2						
	7:00	1:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.316	2.13	14914	1.316	2.09	-6.2									
	8:00	2:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.316	2.13	14925	1.316	2.10	-4.89									
	9:00	3:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.316	2.11	14937	1.316	2.02	-3.88									
MV	10:00	4:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.09	14950	1.315	2.06	-2.99	4.59	5.02	-5.37						
	11:00	5:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.06	14962	1.315	1.917	-5.24									
	12:00	6:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.10	14973	1.315	2.04	-3.89									
	13:00	7:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.06	14986	1.315	2.07	-3.16	7.39	7.41	-5.79						
	14:00	8:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.08	14998	1.315	2.01	-4.86									
	15:00	9:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.316	2.07	15010	1.316	2.03	-3.58	9.41	9.43	-5.62						
	16:00	10:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.00	15021	1.315	2.03		-5.1								
	17:00	11:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.312	2.08	15032	1.312	2.05	-4.11									
	18:00	12:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.310	2.07	15046	1.310	2.03	-3.3									
	19:00	13:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.310	2.05	15058	1.310	1.97	-2.8									
	20:00	14:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.312	2.03	15069	1.313	1.95	-2.0	14.08	14.02	-6.2						
	21:00	15:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.314	2.03	15080	1.314	2.00	-5.5									
	22:00	16:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.315	2.03	15093	1.314	1.99	-4.6									
	23:00	17:00	✓	✓	✓	3.14	3.00	3.00	3.00	3.00	✓	1.313	2.00	15105	1.313	2.02	-3.9									
Blank	Begin	End																								

Zero air filter @ 17:30 - 18:00
 SMPS, CPC, UFA → 0

06/08/03

Date	All times in local time		Keck Data System																
	UT	MST	Pump oil	Pump pres	Inlet Heater	Humidification			cyclone	Keck Data records X 10 ⁻⁶	CPC	UFN	Aethalometer		PCASP	Neph A	Neph B		
Operator Initials					Inlet temp	Eff. RH	Ramp up	Ramp down	Drier rite change	Check/c lean	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)	
WT	0:00	18:00	✓	244	24.6	26.1	✓	✓	✓	✓	0.0503	3510	4900	0.1	4.1	290	✓	7.0	5.9
	1:00	19:00	✓	244	24.2	22.7	✓	✓	✓	✓	0.03187	1697	2397	0.23	3.8	277	✓	6.59	5.37
	2:00	20:00	✓	280	24.2	22.6	✓	✓	✓	✓	0.03001	1930	2520	0.04	3.9	260	✓	4.0	3.6
	3:00	21:00	✓	250	20.7	22.3	✓	✓	✓	✓	0.0605	4520	6021	0.01	4.2	270	✓	5.7	4.2
	4:00	22:00	✓	275	20.7	21.9	✓	✓	✓	✓	0.0144	2780	3600	0.01	4.0	290	✓	5.0	4.7
	5:00	23:00	✓	250	24.3	22.4	✓	✓	✓	✓	0.076	1940	2420	0.07	4.3	390	✓	5.4	5.4
	6:00	24:00	✓	265	26.0	23.2	✓	✓	✓	✓	0.02504	2030	2630	0.05	4.0	450	✓	6.5	7.0
WT	7:00	0:00	✓	250	24.6	23.5	✓	✓	01:05	✓	0.0249	1940	2615	0.02	4.3	491	✓	7.1	8.1
	8:00	2:00	✓	264	24.6	23.5	✓	✓	✓	✓	0.0284	1755	2340	0.05	4.0	474	✓	7.5	6.65
	9:00	3:00	✓	256	29.1	23.05	✓	✓	✓	✓	0.0323	2007	2590	0.06	3.9	452	✓	6.75	6.8
	10:00	4:00	✓	254	29.7	23.04	✓	✓	✓	✓	0.0357	2093	2697	0.07	4.2	640	✓	6.59	8.05
	11:00	5:00	✓	270	29.6	23.06	✓	✓	✓	✓	0.0392	2233	2706	0.06	3.9	792	✓	8.60	9.80
	12:00	6:00	✓	270	29.47	22.91	✓	✓	✓	✓	0.0430	2302	3158	0.08	4.2	948	✓	14.89	13.12
MV	13:00	7:00	✓	273	29.24	23.88	✓	✓	✓	✓	0.0465	1997	2493	0.10	3.9	646	✓	9.024	10.0
	14:00	8:00	✓	272	28.15	22.45	✓	✓	✓	✓	0.0504	1860	2362	0.17	4.0	589	✓	11.90	11.23
	15:00	9:00	✓	276	25.10	19.76	✓	✓	✓	✓	0.0536	1350	1751	0.48	4.4	561	✓	13.36	14.58
	16:00	10:00	✓	275	25.3	21.1	✓	✓	✓	✓	0.0575	1700	2600	0.44	4.1	600	✓	12.1	12.5
	17:00	11:00	✓	250	24.4	21.6	✓	✓	11:10	✓	0.06082	1090	2560	0.01	4.5	600	✓	11.7	11.0
	18:00	12:00	✓	270	26.3	21.4	✓	✓	✓	✓	0.0645	2090	3170	0.03	4.1	650	✓	11.4	11.9
	19:00	13:00	✓	265	24.7	21.0	✓	✓	✓	✓	0.0682	4360	6120	0.027	4.1	750	✓	11.4	12.6
	20:00	14:00	✓	250	23.4	17.6	✓	✓	✓	✓	0.072	1500	2140	0.06	4.3	620	✓	15.5	10.1
	21:00	15:00	✓	260	22.7	15.7	✓	✓	✓	✓	0.075	3000	5100	0.07	4.3	670	✓	11.2	10.2
	22:00	16:00	✓	274	22.5	16.1	✓	✓	✓	✓	0.0792	2400	10000	0.35	3.9	110	✓	13	13.4
	23:00	17:00	✓	242	22.4	15.5	✓	✓	✓	✓	0.0826	4000	6200	0.01	4.4	912	✓	13.7	10.4
Blank	Begin	End																	

WX: Cold over night (3°C at midnight); misty at dawn; clear, bright sunshine, clear at 10:00 am; strato cum overcast @ 11:30 am; SCT fair-weather @ 1:00 pm;
 SCT fair-weather @ 5:00 pm;

17:15 ON → 12-0.5-8-1.0-1.8-0.5-2

Keck II Data Systems

Date	Operator Initials	UT	MST	TST Neph		Data recording in sec	Sheath flow (lpm)	SMPS		Clean impactor	APS Sample Number	UHSAS Sample Number	
				Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)			Delta T K	Sample flow (lpm)				Sample number
06/08/02	WT	0:00	10:00	56.7	4.08	2.4	3.0	.22	38	✓	5796	20	
		1:00	10:00	50.7	8.53	2.5	3.0	.22	44	✓	5830	56	
		2:00	20:00	3.5	0.05	2.7	3.0	.22	57	—	5843	117	
		3:00	20:00	4.2	.66	2.6	3.0	.21	69	—	5951	176	
		4:00	22:00	3.94	.68	2.5	3.0	.22	81	—	6016	240	
		5:00	23:00	5.06	.93	2.4	3.0	.21	92	—	6069	294	
		6:00	24:00	5.3	.94	2.5	3.0	.22	105	—	6137	358	
		7:00	0:00	6.6	.67	2.5	3.0	.22	116	—	6190	415	
		8:00	2:00	6.06	.97	2.5	3.0	.22	128	—	6245	476	
		9:00	3:00	6.41	1.23	2.3	3.0	.22	140	—	6309	540	
		10:00	4:00	7.35	1.29	2.4	3.0	.22	152	—	6366	596	
		11:00	5:00	8.89	1.62	2.4	3.0	.22	163	—	6424	655	
	MV	12:00	6:00	11.25	1.97	2.3	3.0	.22	176	—	6487	718	
		13:00	7:00	8.50	1.40	2.3	3.0	.22	187	—	6546	777	
		14:00	8:00	11.24	1.76	2.4	3.0	.21	200	—	6610	841	
		15:00	9:00	12.86	2.02	2.6	3.0	.19	211	—	6665	897	
		16:00	10:00	12.0	1.83	2.4	3.0	.23	224	—	6728	960	
		17:00	10:00	10.4	1.5	2.5	3.0	.21	234	—	6780	1014	
	Blank	18:00	12:00	10.5	1.54	2.5	3.0	.22	247	12:00	—	6843	1076
		19:00	13:00	10.7	1.82	2.5	3.0	.22	259	—	6903	1137	
		20:00	14:00	9.7	1.65	2.4	3.0	.23	272	—	6971	1205	
		21:00	15:00	9.03	1.69	2.5	3.0	.23	283	—	7023	1257	
		22:00	16:00	12.2	2.28	2.5	3.0	.22	295	—	7087	1327	
		23:00	17:00	9.90	1.7	2.5	3.0	.22	306	—	7141	1377	

SMPS/APS
synch

1:15

offer/during run #
312 SMPS to AMS filter on

Date	All times in local time						AMS																			
	Operat or Initials	UT	MST	Filament cut on	Pump #1/2 water on	Clo upper	Mass Spectrum Mode						TOF Mode			CCN			Filter pack change time period	Begin End	Comments					
							Turbo Pump currents (amps)						Airbeam signal $\times 10^{-6}$	Flow Rate (ppm)	Flow Rate (ppm)	Bloc ked /open	Run Number of file being saved	Flow Rate (ppm)				AB TOF- air beam signal $\times 10^{-6}$	Baseline value (volts)	Time pairs rewritten		Baseline after rewriting
							2	3	4	5	6	Begin												End		
		0:00	18:00	✓	✓			✓	1.322	2.37	14546	1.322	2.26	-3.1												
		1:00	19:00	✓	✓			✓	1.32	2.36	14553	1.32	2.30	-6.62	18:57	19:00										
		2:00	20:00	✓	✓			✓	1.319	2.35	14564	1.319	2.36	-5.4												
		3:00	21:00	✓	✓			✓	1.318	2.34	14576	1.318	2.30	-4.12												
		4:00	22:00	✓	✓			✓	1.318	2.36	14589	1.318	2.24	-3.2	22:20	22:22	-6.3									
		5:00	23:00	✓	✓			✓	1.318	2.32	14600	1.318	2.32	-5.9												
		6:00	24:00	✓	✓			✓	1.319	2.29	14613	1.319	2.31	-4.3												
		7:00	0:00	✓	✓			✓	1.320	2.31	14624	1.320	2.21	-3.2												
		8:00	1:00	✓	✓			✓	1.32	2.30	14637	1.32	2.27	-2.6	2:02	2:05	-6.11									
		9:00	2:00	✓	✓			✓	1.31	2.28	14650	1.31	2.24	-4.72												
		10:00	3:00	✓	✓			✓	1.319	2.28	14661	1.319	2.18	-3.24	4:27	4:30	-6.08									
		11:00	4:00	✓	✓			✓	1.319	2.27	14673	1.31	2.23	-5.29												
		12:00	5:00	✓	✓			✓	1.319	2.23	14686	1.319	2.28	-3.71												
		13:00	6:00	✓	✓			✓	1.32	2.23	14697	1.32	2.22	-2.82												
		14:00	7:00	✓	✓			✓	1.32	2.25	14710	1.32	2.21	-2.13	8:14	8:16	-5.92									
		15:00	8:00	✓	✓			✓	1.32	2.25	14721	1.32	2.21	-4.87												
		16:00	9:00	✓	✓			✓	1.317	2.24	14734	1.317	2.22	-3.7												
		17:00	10:00	✓	✓			✓	1.319	2.25	14744	1.319	2.16	-3.1												
		18:00	11:00	✓	✓			✓	1.319	2.22	14756	1.319	2.17	-2.5	12:40	12:42	-6.3									
		19:00	12:00	✓	✓			✓	1.32	2.21	14768	1.32	2.19	-6.0												
		20:00	13:00	✓	✓			✓	1.321	2.19	14783	1.321	2.21	-4.4												
		21:00	14:00	✓	✓			✓	1.321	2.25	14793	1.321	2.15	-3.6												
		22:00	15:00	✓	✓			✓	1.317	2.21	14805	1.317	2.16	-2.5	16:15	16:17	-6.2									
		23:00	16:00	✓	✓			✓	1.327	2.18	14817	1.327	2.16	-5.5												
		Blank	Begin	✓	✓			✓																		
			End																			17:30 AMS filter on				

Date		06/08/01		All times in local time		Keck Data System																					
Oper ator	Initia ls	UT	MST	Vacuum		Inlet Heater		Humidification			cyclone	Keck Data records X 10%		CPC		UFN		Aethalometer		PCASP		Neph A		Neph B			
				Pump oil	Pump pres	Inlet temp	Effie ctive RH	Ramp up	Ramp down	Drier rite change		Check/c lean	Keck Data	Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Mm ⁻¹)	Back scatter (Mm ⁻¹)						
		0:00																									
		1:00																									
		2:00																									
		3:00																									
		4:00																									
		5:00																									
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		21:00																									
		22:00																									
		23:00																									
		Begin																									
		End																									

* Neph A+B record table @ 14:30
 @ 1:23 pm inlet to CPC + SIPS also connected + reconnected.
 CPC + SIPS offline for AM stable @ 1:40 pm
 Zero air to SIPS, CPC, UFN available 5:28-6:00 pm
 b.us → surrounded by cloud → RM = 95%
 7 AM → ~~cloud~~ cloudy
 In cloud → 10:30 am RH > 99% all morning
 Rainy ↓ Fog ↓ Clouds

Keck II Data Systems

Date	Operator Initials	UT	MST	TSI Neph		Delta T K	Data recording in sec	Sheath flow (lpm)	SMPS		Clean impactor	APS Sample Number	UHSAS Sample Number
				Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)				Sample flow (lpm)	Sample number			
06/08/01		0:00	18:00	15.4	2.5	2.5	✓	3.0	.23	871	-	4359	10
		1:00	18:00	18.3	2.79	2.7	✓	AMS	AMS cal	-	-	4405	56
		2:00	19:00	16.82	2.54	2.7	✓	3.0	.22	2	✓	4472	120
		3:00	20:00	17.7	2.14	2.6	✓	3.0	.23	12	-	4527	178
		4:00	22:00	22.8	3.4	2.4	✓	3.0	.24	24	-	4587	239
		5:00	23:00	25.0	3.69	2.4	✓	3.0	.22	35	-	4643	295
		6:00	24:00	10.1	2.67	2.5	✓	3.0	.22	347	-	4704	356
		7:00	0:00	24.04	3.60	2.4	✓	3.0	.24	59	-	4763	416
		8:00	2:00	31.5	4.65	2.4	✓	3.0	.20	72	-	4827	482
		9:00	3:00	21.5	3.18	2.3	✓	3.0	.20	85	-	4892	547
		10:00	4:00	16.5	2.38	2.4	✓	3.0	.20	96	-	4948	603
		11:00	5:00	13.70	1.87	2.3	✓	3.0	.20	108	-	5009	665
		12:00	6:00	12.80	1.85	2.3	✓	3.0	.20	119	-	5064	721
		13:00	7:00	13.07	1.89	2.3	✓	3.0	.19	131	-	5125	781
		14:00	8:00	23.5 2.13	2.13	2.3	✓	3.0	.19	142	-	5182	838
		15:00	9:00	10.01	1.58	2.3	✓	3.0	.18	154	-	5240	895
		16:00	10:00	10.63	1.55	2.4	✓	3.0	.18	166	-	5302	957
		17:00	10:00	12.4	1.921	2.3	✓	3.0	.19	179	-	5366	1021
		18:00	12:00	14.6	2.29	2.4	✓	3.0	0.21	192	-	5432	1087
		19:00	12:00	12.2	1.23	2.3	✓	3.0	0.21	204	-	5491	1146
		20:00	14:00	12.2	0.55	2.4	✓	AMS	AMS cal	-	✓	5570	1220
		21:00	15:00	8.55	1.53	2.4	✓	3.0	0.22	2	-	5614	1272
		22:00	16:00	6.88	1.22	2.4	✓	3.0	0.22	11	-	5659	1321
		23:00	17:00	6.28	0.94	2.5	✓	3.0	0.22	24	-	5721	1384
	Blank	Begin	End										

SMPS down @ 0:30 per AMS - cal

Fig returning @ 3:20
Shower @ 3:40
Fig leaving @ 4:46 @ 5:00

APSTSMPs synchronized at 3:15 pm.

CCN 2.5 - 0.8 - 1.2 - 0.5 - 0.2

SMPS back on at 15:05
radneph back on after 15:00 (after calibration 14:40 - 15:00)

Date	All times in local time										Filter pack change time period	Begin End	Comments							
	UT	MST	Film ent on	Pum pif2 wear in	Chopper	AMS Mass Spectrum Mode								TOF Mode		CCN				
						2	3	4	5	6	Flow Rate (rpm)	Airbeam signal X10 ⁻⁶	Run Number of file being saved	Flow Rate (rpm)	AB TOF-air beam signal X 10 ⁻⁶	Baseline value (volts)	Time pads rewetted Begin End	Baseline after rewetting		
WT	0:00	18:00	✓	✓	✓	1.39	1.26	2.21	2.28	1.60	1.315	1.60	14501	1.315	1.60	-5.5				
	1:00	19:00				AMS cal														
	2:00	20:00														-4.2				
	3:00	21:00				1.08	1.05	2.1	2.27							-3.1				
	4:00	22:00				1.10	1.08	2.5	2.1	2.27						-2.0	21:00	22:01	-4.9	
	5:00	23:00				1.08	1.05	2.1	2.28							-3.6				
	6:00	24:00				1.08	1.05	2.1	2.28							-2.75				
	7:00	0:00				1.11	1.08	2.5	2.1	2.27						-2.5				
	8:00	1:00				1.08	1.05	2.1	2.27							-2.4	1:25	1:27	-5.8	
	9:00	2:00				1.08	1.05	2.1	2.27							-5.12				
	10:00	3:00				1.08	1.05	2.1	2.27							-3.39				
	11:00	4:00				1.08	1.05	2.1	2.27							-2.96				
	12:00	5:00				1.08	1.05	2.1	2.27							-2.05	5:10	5:12	-5.25	
	13:00	6:00				1.08	1.05	2.1	2.27							-3.3	6:46	6:49	-6.17	
	14:00	7:00				1.08	1.05	2.1	2.27							-5.4				
	15:00	8:00				1.08	1.05	2.1	2.27							-4.14				
	16:00	9:00				1.08	1.05	2.1	2.27							-3.7				
	17:00	10:00				1.08	1.05	2.1	2.27							-2.32	10:00	10:01	-6.15	
	18:00	11:00				1.08	1.05	2.1	2.27							-4.8				
	19:00	12:00				1.08	1.05	2.1	2.27							-3.5				
	20:00	13:00				1.08	1.05	2.1	2.27							-2.9				
	21:00	14:00				AMS cal														
	22:00	15:00	✓	✓	✓	1.08	1.05	2.1	2.27		1.317	2.39	14508	1.317	2.33	-1.6	3:24	3:26	-6.4	
	23:00	16:00	✓	✓	✓	1.08	1.05	2.1	2.27		1.320	2.39	14518	1.320	2.30	-5.8				
	24:00	17:00	✓	✓	✓	1.08	1.05	2.1	2.27		1.322	2.40	14531	1.322	2.29	-4.5				
Blank	Begin	End																		

CON not plugged in and working

AMS back on after EM 7-11-2011
 3:25 on
 V. Poggio / C. Lundy
 AMS exp car on @ 5:28pm

Date 06/07/31 All times in local time

Keck Data System

Date	Oper ator	UT	MST	Vacuum			Inlet Heater		Humidification			cyclone	Keck Data records X 10 ⁻⁶	GPC	UFN	Aethalometer		PCASP		Neph A	Neph B
				Pump oil	Pump pres	Inlet temp	Effe ctive RH	Ramp up	Ramp down	Drier rite change	Check/c lean					Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)		
	MV	0:00	18:00	✓	240	26.6	18.44	✓	✓	-	-	-	0.00165			0.15		1017	✓	33.20	30.09
		1:00	19:00	✓	250	27.1	25	✓	✓	-	-	-	0.000412			0.43		1060	✓	33.0	30.7
		2:00	20:00	✓	245	26.7	25	✓	✓	-	-	-	0.000874	2500	3110	0.20		1000	✓	31.2	30.0
	DM	3:00	21:00	✓	240	24.5	25	✓	✓	-	-	-	0.00433	1130	1470	0.25	3.5	830	✓	18.3	18.4
		4:00	22:00	✓	250	24.3	25	✓	✓	-	-	-	0.00197	1130	1470	0.12	3.3	700	✓	14.8	15.3
		5:00	23:00	✓	245	25.4	25	✓	✓	11:20	-	-	0.00217	1850	2500	0.32	3.3	830	✓	16.5	17.6
		6:00	24:00	✓	260	26.9	25	✓	✓	-	-	-	0.00250	1490	1920	0.20	3.3	840	✓	17.1	17.9
		7:00	25:00	✓	270	31.8	25	✓	✓	-	-	-	0.00290	1300	1050	0.24	3.0	795	✓	16.5	18.2
		8:00	26:00	✓	240	32.3	25.7	✓	✓	-	-	-	0.00320	1270	1700	0.26	3.0	800	✓	15.6	15.9
		9:00	27:00	✓	280	31.0	24.4	✓	✓	-	-	-	0.0035	1080	1430	0.31	3.1	690	✓	20.5	21.1
		10:00	28:00	✓	267	29.5	23.2	✓	✓	-	-	-	0.00391	1100	1530	0.16	3.3	660	✓	16.2	16.7
		11:00	29:00	✓	270	30.6	24.1	✓	✓	-	-	-	0.00427	1080	1470	0.34	3.3	1030	✓	10.4	20.1
		12:00	30:00	✓	250	32.3	23.6	✓	✓	-	-	-	0.00465	1425	1700	0.26	3.1	100	✓	20.0	20.4
		13:00	31:00	✓	246	32	26.2	✓	✓	-	-	-	0.00523	1455	1070	0.25	3.5	100	✓	21.9	19
		14:00	32:00	✓	260	27	24.6	✓	✓	-	-	-	0.00530	1340	1700	0.30	3.5	740	✓	17.9	18.9
		15:00	33:00	refilled	245	24.8	25	✓	✓	9:05	-	-	0.00576	1340	1810	0.01	3.5	1000	✓	19.9	20.2
		16:00	34:00	✓	242	24.1	22.15	✓	✓	-	-	-	0.00576	1340	1810	0.44	3.3	1000	✓	21.1	20.1
		17:00	35:00	✓	265	23.6	25	✓	✓	-	-	-	0.00612	1440	1800	0.13	3.6	976	✓	20.87	20.81
		18:00	36:00	✓	245	23.7	25	✓	✓	-	-	-	0.00647	1410	1880	0.29	3.3	1000	✓	29.8	31.4
		19:00	37:00	✓	270	24.4	25	✓	✓	-	-	-	0.00684	1480	2050	0.25	3.5	1040	✓	30.2	30.8
		20:00	38:00	✓	245	25.5	25	✓	✓	-	-	-	0.00719	1420	1900	0.01	3.2	950	✓	21.9	22.7
		21:00	39:00	✓	265	24.9	25	✓	✓	-	-	-	0.00760	1410	1910	0.26	3.0	930	✓	20.9	21.4
		22:00	40:00	✓	252	30.44	22.08	✓	✓	-	-	-	0.00792	1410	1950	0.18	3.3	See below		15	
		23:00	41:00	✓	252	30.44	22.08	✓	✓	-	-	-	0.00831	1132	1486	0.27	2.9			15.93	16.29
	Blank	Begin	End																		

PCASP problem: Checked up?
 Channels 20-24 are have Zillions of counts
 Need to reboot software, but this means taking down Keck.

Keck II Data Systems

Date	06/07/31		Keck II Data Systems										
	Operator Initials	UT	MST	Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)	Delta T K	Data recording in sec	Sheath flow (lpm)	Sample flow (lpm)	SMPS Sample number	Clean impactor	APS Sample Number	UHSAS Sample Number
MV	0:00	19:00		10.96	5.28	2.6	✓			591		2965	
V	1:00	19:00		29.2	4.21	2.8	✓	3.0	0.22	598		3002	67
JCA	2:00	20:00		27.97	4.06	3.0	✓	3.0	0.20	610		3062	127
	3:00	20:00		16.1	2.64	2.3	✓	3.0	0.23	623		3127	193
	4:00	22:00		14.6	2.33	2.5	✓	3.0	0.23	632		3174	241
	5:00	23:00		16.6	2.59	2.4	✓	3.0	0.21	645		3235	302
	6:00	24:00		16.1	2.49	2.4	✓	3.0	0.20	657		3295	364
	7:00	0:00		16.3	2.70	2.4	✓	3.0	0.20	668		3353	422
WJ	8:00	2:00		14.6	2.42	2.3	✓	3.0	.22	681		3416	485
	9:00	3:00		15.7	2.46	2.3	✓	3.0	.24	691		3466	503
	10:00	4:00		14.8	2.47	2.5	✓	3.0	.22	703		3526	598
	11:00	5:00		18.9	3.2	2.5	✓	3.0	.21	714		3580	622
	12:00	6:00		19.8	3.19	2.5	✓	3.0	.20	726		3639	717
	13:00	7:00		18.4	3.06	2.4	✓	3.0	.20	739		3701	777
	14:00	8:00		18.2	3.05	2.4	✓	3.0	.20	751		3762	839
WJ	15:00	9:00		18.9	3.25	2.3	✓	3.0	.21	763		3821	900
JCA	16:00	10:00		20.1	3.19	2.5	✓	3.0	.22	776		3885	964
	17:00	10:00		21.37	3.45	2.4	✓	3.0	.22	788		3944	1024
	18:00	12:00		26.3	2.98	2.4	✓	3.0	.23	799		4000	1080
	19:00	13:00		29.6	4.32	2.4	✓	3.0	.24	811		4062	1142
	20:00	14:00		21.5	3.3	2.3	✓	3.0	.24	823		4118	1200
	21:00	15:00		20.1	3.2	2.4	✓	3.0	.23	837		4192	1272
	22:00	16:00		18.0	2.93	2.4	✓	3.0	.23	847		4240	1321
	23:00	17:00		16.7	2.72	2.4	✓	3.0	.23	860		4305	1390
Blank	Begin		End										

SMPS/APS
synch
5:10

WX: cooler,
overcast, low wind,
steady, no wind.

2:30 6:15g sunny show

Date	Operat or Initials	UT	All times in local time										Filter pack change time period	Begin End	Comments																			
			AMS																															
			Film cont on	Pum pff2 wat m	Cho ppr	Turbo Pump currents (amps)						Mass Spectrum Mode				TOF Mode			CCN															
			2	3	4	5	6	Bloc ked /open	Flow Rate (fpm)	Airbeam signal X10 ⁻⁶	Run Number of file being saved	Flow Rate (fpm)	AB TOF- air beam signal X 10 ⁻⁶	Baseline value (volts)	Time pads revisited	Begin	End	Baseline after reworking																
		0:00																																
		1:00	✓	✓	✓	3.10	1.10	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.319	1.74	14225	1.318	1.76	/	/	/	/	/	/	/	/	/						
		2:00	✓	✓	✓	3.10	1.10	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.321	1.74	14238	1.321	1.73	/	/	/	/	/	/	/	/	/	/					
		3:00	✓	✓	✓	3.14	1.25	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.320	1.73	14250	1.320	1.65	/	/	/	/	/	/	/	/	/	/	/				
		4:00	✓	✓	✓	3.14	1.28	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.322	1.73	14259	1.322	1.69	/	/	/	/	/	/	/	/	/	/	/	/			
		5:00	✓	✓	✓	3.14	1.25	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.323	1.73	14272	1.323	1.67	/	/	/	/	/	/	/	/	/	/	/	/	/		
		6:00	✓	✓	✓	3.14	1.25	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.323	1.70	14284	1.323	1.65	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
		7:00	✓	✓	✓	3.14	1.25	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.323	1.71	14295	1.323	1.65	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
		8:00	✓	✓	✓	3.14	1.25	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.320	1.69	14307	1.320	1.67	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
		9:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.318	1.70	14317	1.318	1.67	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
		10:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.316	1.69	14320	1.316	1.67	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		11:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.313	1.70	14322	1.313	1.65	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		12:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.312	1.68	14323	1.312	1.58	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		13:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.312	1.68	14323	1.312	1.64	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		14:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.312	1.70	14328	1.312	1.60	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		15:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.313	1.70	14329	1.313	1.66	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		16:00	✓	✓	✓	3.14	1.25	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.313	1.67	14334	1.313	1.62	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		17:00	✓	✓	✓	3.14	1.25	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.312	1.68	14346	1.312	1.65	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		18:00	✓	✓	✓	3.14	1.25	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.311	1.69	14354	1.311	1.58	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		19:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.313	1.65	14359	1.313	1.57	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		20:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.314	1.64	14359	1.314	1.62	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		21:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.314	1.64	14359	1.314	1.62	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		22:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.314	1.62	14367	1.314	1.62	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		23:00	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.314	1.62	14370	1.314	1.59	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		Begin	✓	✓	✓	3.14	1.20	0.25	0.25	0.25	0.25	0.25	0.25	✓	1.314	1.61	14389	1.314	1.57	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

2:34: ccu108 removed + inlet plug seal
 Den L. herby m37 for ccu108
 5:19 Den replumbing ccu104

WY
 J
 WY

Date		06/07/30		All times in local time										Keck Data System									
Oper ator Initials	UT	MST	Vacuum		Inlet Heater		Humidification			cyclone	Keck Data records X 10 ⁻⁶	GPC		UJFN		Aethalometer		PCASP		Neph A		NephB	
			Pump oil	Pump pres	Inlet temp	Effie ctive RH	Ramp up	Ramp down	Drier rite change			Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (lpm)	Total conc (cm ⁻³)	Size distrib data ok?	Back scatter (Min ⁻¹)	Back scatter (Min ⁻¹)				
	0:00																						
	1:00		✓	255		25.1	22.8	✓	✓	-	0.000509	2950	3100	0.56		950	✓	22.8	23.6				
	2:00		✓	250		23.1	22.2	✓	✓	-	0.00076	3080	3200	0.41	2.5	630	✓	15.1	16.0				
	3:00		✓	250		22.9	23.5	✓	✓	-	0.00112	4650	4950	0.20	2.4	470	✓	11.8	12.7				
	4:00		✓	245		22.5	25.0	✓	✓	-	0.00144	6170	6830	0.13	2.6	380	✓	5.00	5.00				
	5:00		✓	260		23.7	25.0	✓	✓	-	0.00187	5850	6540	0.11	2.6	350	✓	4.8	4.8				
	6:00		✓	245		21.1	25.0	✓	✓	-	0.00220	5690	6300	0.12	2.6	330	✓	5.1	4.8				
	7:00		✓	265		20.9	25.0	✓	✓	-	0.00255	5350	6000	0.02	2.7	330	✓	3.8	4.3				
	8:00		✓	257		22.6	27.4	✓	✓	-	0.0029	3700	4400	0.10	2.6	640	✓	13.4	14.7				
	9:00		✓	245		22.3	26.1	✓	✓	-	0.00319	2750	3200	0.33	2.7	1000	✓	20.7	20.6				
	10:00		✓	250		21.4	18.0	✓	✓	-	0.00357	2300	2600	0.40	2.7	850	✓	23.9	24				
	11:00		✓	245		25.7	20.1	✓	✓	-	0.00392	1800	2100	0.37	2.7	1150	✓	31.7	32				
	12:00		✓	260		25.5	20.1	✓	✓	-	0.00427	1550	1670	0.40	2.3	1250	✓	29	30.5				
	13:00		✓	250		26.8	20.7	✓	✓	-	0.00469	1540	1730	0.46	2.3	1180	✓	31.5	31.9				
	14:00		✓	250		23.0	21.2	✓	✓	-	0.00521	1580	1806	.53	3.0	1275	✓	33.2	33.4				
	15:00		✓	260		24.6	20.8	✓	✓	-	0.00537	1670	1840	.29	3.0	1270	✓	32.6	33.4				
	16:00		✓	249		25.7	17.8	✓	✓	-	0.00573	1680	1830	.42	2.8	1270	✓	32.2	32.7				
	17:00		✓	253		26.7	20.8	✓	✓	-	0.00611	1740	1970	.61	3.0	1417	✓	41.25	41.19				
	18:00		✓	268		27.52	19.82	✓	✓	-	0.00648	3370	3560	.11	3.2	1751	✓	50.41	52.23				
	19:00		✓	254		28.15	18.43	✓	✓	-	0.00683	660	1940	0.44	3.1	1314	✓	41.07	40.08				
	20:00		✓	239		29.47	17.06	✓	✓	-	0.00719	670	1950	0.42 0.42	3.9	1335	✓	40.83	42.80				
	21:00		✓	237		31.15	15.39	✓	✓	-	0.00755	2870	3160	0.56	3.9	1347	✓	40.87	41.32				
	22:00		✓	240		30.73	15.75	✓	✓	-	0.00789	1970	2470	0.51	3.7	1436	✓	42.22	42.54				
	23:00		✓	253		29.13	17.11	✓	✓	-	0.00826	2350	2570	0.61	3.7	1347	✓	39.67	38.81				
Blank	Begin																						
	End																						

filled pump oil @ 6

Date	All times in local time										AMS				TOF Mode		CCN		Filter pack change time period	Begin End	Comments	
	Operat or Initials	UT	MST	Filam ent on	Pum p#2 war m	Cho pper	Turbo Pump currents (amps)						Mass Spectrum Mode				Time pads rewetted					Baseline value (volts)
							2	3	4	5	6	Bloc ked /open	Flow Rate (rpm)	Airbeam signal X10 ⁻⁶	Run Number of file being saved	Flow Rate (rpm)	AB TOF air beam signal X 10 ⁻⁶	Begin	End			
	MV	0:00	✓	✓								✓	1.320	1.92	13939	1.320	1.87					
		1:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.319	1.92	13949	1.319	1.91	20:00	20:10			CCN misbehaving.
		2:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.321	1.89	13960	1.321	1.79					CCN not working in tentatively
		3:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.323	1.90	13971	1.323	1.82					
		4:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.325	1.89	13986	1.325	1.86					
		5:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.325	1.87	13997	1.325	1.86					
		6:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.325	1.89	14008	1.325	1.84					
		7:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.325	1.89	14019	1.325	1.82					
		8:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.325	1.88	14020	1.325	1.82					
		9:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.322	1.90	14021	1.322	1.79					
		10:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.322	1.87	14053	1.322	1.79					
		11:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.323	1.86	14065	1.322	1.76					
		12:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.321	1.86	14080	1.321	1.83					CCN stamp → focus on but gaps in XDET on each display
		13:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.320	1.86	14090	1.320	1.82					restart at 11:50
		14:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.320	1.84	14101	1.320	1.77					CCN created at 12:15 y off 10:53
		15:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.320	1.86	14114	1.320	1.79					
		16:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.315	1.85	14127	1.315	1.79					
		17:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.315	1.85	14140	1.315	1.77					
		18:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.316	1.84	14157	1.316	1.76					
		19:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.317	1.80	14164	1.317	1.81					
		20:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.319	1.79	14174	1.319	1.77					
		21:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.318	1.77	14187	1.318	1.75					
		22:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.318	1.77	14199	1.318	1.68					
		23:00	✓	✓			1.1	1.2	1.3	1.4	1.5	✓	1.318	1.77	14199	1.318	1.68					
	Blank	Begin																				
		End																				

5:05 CCN 02-05-08-12-08-05-02

Date		All times in local time										Keck Data System										
Operator Initials	UT	MST	Vacuum		Inlet Heater		Humidification			cyclone	Keck Data records	CPC		UFN	Aethalometer		PCASP		Neph A	Neph B		
			Pump oil	Pump pres	Inlet temp	Effie ctive RH	Ramp up	Ramp down	Drier rite change			Check/c lean	Keck Data		Concentrat ion/ Butanol OK	Concentrat ion/ Butanol OK	Volts	Flowrate (fpm)			Total conc (cm ⁻³)	Size distrib data ok?
	0:00																					
	1:00																					
	2:00																					
	3:00																					
	4:00																					
	5:00																					
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	21:00																					
	22:00																					
	23:00																					
Blank	Begin																					
	End																					

21:17 CCN
 23:05 CCN
 4:28 CCN
 12:30 CCN

0.2 - 0.5 - 0.8 - 1.1 - 0.8 - 0.5 - 0.2
 1.4 - 1.9 - 1.4 - 1.8 - 1.4 - 1.9 - 1.4
 0.2 - 0.5 - 0.8 - 1.0 - 0.8 - 0.5 - 0.2
 0.2 - 0.5 - 0.8 - 1.0 - 0.8 - 0.5 - 0.2

Keck II Data Systems

Date	Operator Initials	UT	MST	TSI Neph		Data recording in sec	Sheath flow (lpm)	Sample flow (lpm)	SMPS		Clean impactor	APS Sample Number	UHSAS Sample Number
				Green total scatter (Mm ⁻¹)	Green back scatter (Mm ⁻¹)				Delta T K	Sample number			
06/07/24	WJ	0:00	18:00	10.1	1.58	2.8	3	.22	21	-	102	164	
		1:00	19:00	10.2	1.6	2.5	3	.23	33	-	164	227	
		2:00	20:00	10.8	1.4	2.8	3	.22	44	-	218	281	
		3:00	21:00	12.5	1.8	2.7	3.0	.22	58	-	285	348	
		4:00	22:00	10.9	1.74	2.4	3.0	.24	67	-	335	401	
		5:00	23:00	10.8	1.6	2.3	3	.23	78	22:55	389	457	
		6:00	24:00	11.5	1.7	2.3	3	.23	91	-	455	523	
		7:00	0:00	12.7	2.1	2.3	3	.23	102	-	509	581	
		8:00	2:00	12.9	2.1	2.3	3.0	.22	118	-	588	660	
		9:00	3:00	13.4	2.0	2.3	3.0	.22	128	-	636	708	
		10:00	4:00	13.5	2.16	2.3	3.0	.22	139	-	691	769	
		11:00	5:00	12.7	2.04	2.3	3.0	.22	151	-	751	826	
		12:00	6:00	12.5	1.90	2.2	3.0	.21	165	-	819	893	
		13:00	7:00	9.1	1.4	2.2	3.0	.21	175	-	872	948	
		14:00	8:00	18.1	1.72	2.3	3.0	.22	186	-	1003 928	1003	
		15:00	9:00	22.8	3.77	2.3	3.0	.20	199	-	991	1070	
		16:00	10:00	17.4	2.83	2.2	3.0	.22	212	-	1054	1128	
		17:00	11:00	22.8	3.65	2.2	3.0	.22	221	-	1102	1184	
		18:00	12:00	20.91	3.46	2.2	3.0	.22	232	-	1159	1253	
		19:00	13:00	22.17	3.384	2.2	3.0	.22	245	-	1221	1307	
		20:00	14:00	18.30	2.872	2.2	3.0	.22	257	14:25	1279	1365	
		21:00	15:00	19.26	2.606	2.3	3.0	.23	268	-	1338	1424	
		22:00	16:00	16.90	2.48	2.3	3.0	.22	284	-	1415	1498	
23:00	17:00	21.4	2.82	2.5	3.0	.22	292	-	1456	1545			
	Blank	Begin	End										

aps/smgs synchronized

2008 21:15

00:05

11:50

10:15

